CDX-CA680X/L580X

SERVICE MANUAL

AEP Model
UK Model

Ver 1.0 2002. 11

Photo: CDX-CA680X

• The tuner and CD sections have no adjustments.

Model Name Using Similar Mechanism	CDX-L380X
CD Drive Mechanism Type	MG-393XA-121//Q
Optical Pick-up Name	KSS-720A

SPECIFICATIONS

CD player section

Signal-to-noise ratio	90 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit

Tuner section

FM

Tuning range	87.5 – 108.0 MHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

MW/LW

Tuning range	MW: 531 – 1,602 kHz LW: 153 – 279 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	MW: 30 µV LW: 40 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	50 W × 4 (at 4 ohms)

General

Outputs	Audio outputs (front) (CDX-CA680X only) Audio outputs (rear) Power aerial relay control terminal Power amplifier control terminal
Inputs	Telephone ATT control terminal Remote controller input terminal BUS control input terminal (CDX-CA680X only) BUS audio input terminal (CDX-CA680X only)
Tone controls	Low ±10 dB at 60 Hz (XPLOD) Mid ±10 dB at 1 kHz (XPLOD) High ±10 dB at 10 kHz (XPLOD)
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 180 mm (w/h/d)
Mounting dimension	Approx. 182 × 53 × 161 mm (w/h/d)
Mass	Approx. 1.2 kg
Supplied accessories	Parts for installation and connections Front panel case (1)

Design and specifications are subject to change without notice.

FM/MW/LW COMPACT DISC PLAYER

9-874-248-01
2002K0400-1
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Sony Corporation
e Vehicle Company
Published by Sony Engineering Corporation

SONY®

SERVICE NOTES

CLASS 1
LASER PRODUCT

This label is located on the bottom of the chassis.

CAUTION—INVISIBLE LASER RADIATION WHEN OPEN
DO NOT STARE INTO BEAM OR
VIEW DIRECTLY WITH OPTICAL INSTRUMENTS

This label is located on the drive unit's internal chassis.

When replacing the chassis (T.U) of mechanism deck which have the "CAUTION LABEL" attached, please be sure to put a new LABEL (OP CAUTION) (3-223-913-01) to the chassis (T.U).

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

TEST DISCS

This set can playback CD-R and CD-ROM discs. The following test discs should be used to check the capability:

CD-R test disc TCD-R082LMT (Part No. J-2502-063-1)
CD-RW test disc TCD-W082L (Part No. J-2502-063-2)

Notes on CD-R/CD-RW discs

- You can play CD-Rs (recordable CDs)/CD-RWs (rewritable CDs) designed for audio use on this unit.
  Look for these marks to distinguish CD-Rs/CD-RWs for audio use.

These marks denote that a disc is not for audio use.

- Some CD-Rs/CD-RWs (depending on the equipment used for its recording or the condition of the disc) may not play on this unit.
- You cannot play a CD-R/a CD-RW that is not finalized*.

* A process necessary for a recorded CD-R/CD-RW disc to be played on the audio CD player.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

● UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

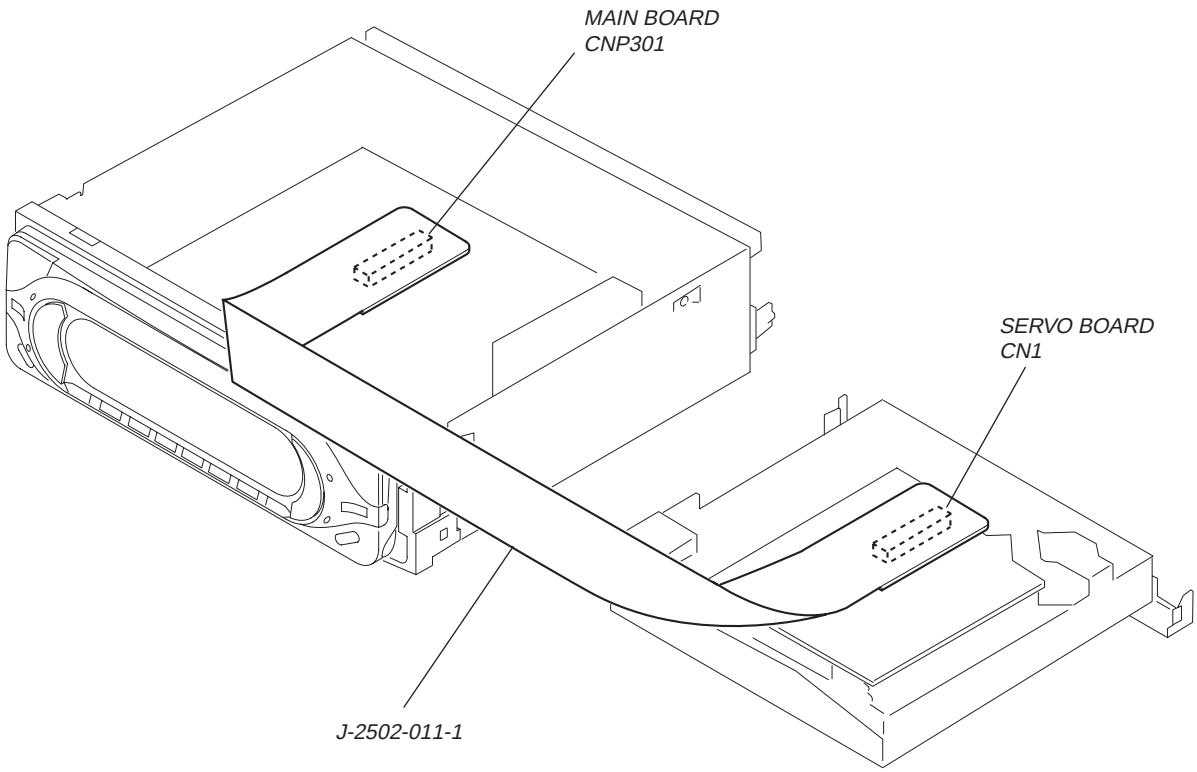
Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350°C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

EXTENSION CABLE AND SERVICE POSITION

When repairing or servicing this set, connect the jig (extension cable) as shown below.

- Connect the MAIN board (CNP301) and the SERVO board (CN1) with the extension cable (Part No. J-2502-011-1).



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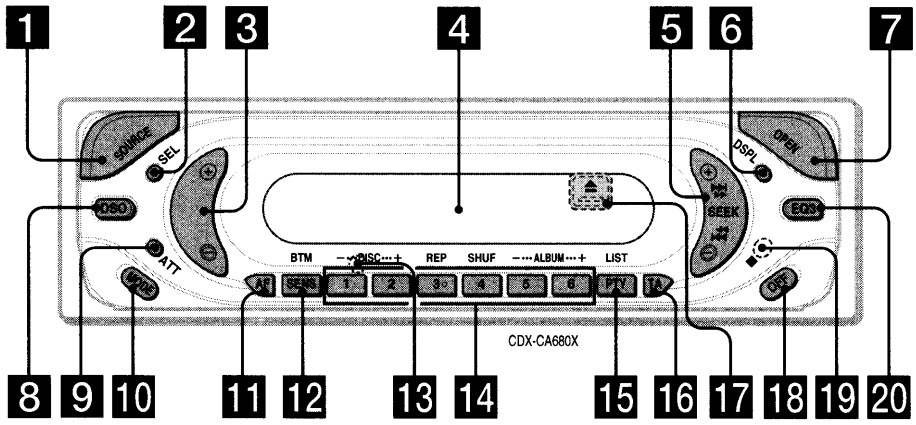
SECTION 1
GENERAL

This section is extracted from instruction manual.

Location of controls

Refer to the pages listed for details.



1 SOURCE (Power on/Radio/CD/MD*1) button
Selecting the source

2 SEL (select) button
Selecting items.

3 Volume +/– button

4 Display window

5 SEEK +/– button
Radio:
Tuning in stations automatically/finding a station manually.
CD (MP3 files*1)/MD*1:
Skipping tracks/fast-forwarding, reversing a track.

6 DSPL (display mode change) button 8, 10, 12, 13, 16

7 OPEN button 7, 9, 13

8 DSO button 23

9 ATT (attenuate) button 22

10 MODE button
Changing the operation

11 AF button 17, 18

12 SENS/BTM button 15, 16, 18

13 RESET button (located on the front side of the unit, behind the front panel) 7

14 Number buttons
Radio:
Storing the desired station on each number button.
CD/MD*1:
①: **DISC –***1 9
②: **DISC +***1 9
③: **REP** 10
④: **SHUF** 11
MP3 files*1:
⑤: **ALBUM –** 9
⑥: **ALBUM +** 9

15 PTY (programme type) /LIST*1 button 11, 12, 19

16 TA button 18

17 ⏏ (eject) button (located on the front side of the unit, behind the front panel) 9

18 OFF (Stop/Power off) button*2 7, 9, 13

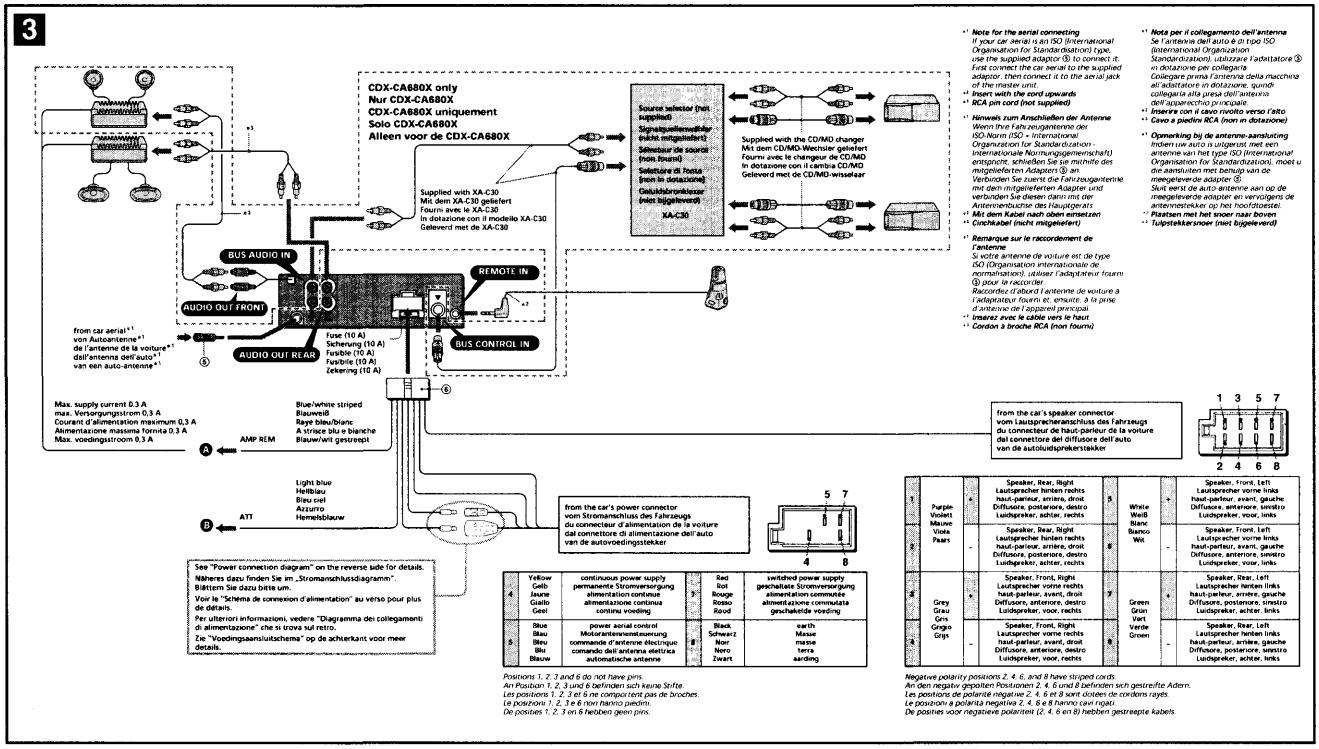
19 Receptor for the card remote commander

20 EQ3 button 23

*1 **CDX-CA680X only**

*2 **Warning when installing in a car without an ACC (accessory) position on the ignition switch**
After turning off the ignition, be sure to press and hold (OFF) on the unit until the display disappears.
Otherwise, the display does not turn off and this causes battery drain.

Connections


3
CDX-CA680X only
Nur CDX-CA680X
CDX-CA680X uniquement
Solo CDX-CA680X
Alleen voor de CDX-CA680X
Source selector (not supplied)
Signaltonwähler (nicht mitgeliefert)
Sélecteur de source (non fourni)
Selettore di fonte (non in dotazione)
Geluidsbronkiezer (niet bijgeleverd)
XA-C30
Supplied with the CD/MD changer
Mit dem CD/MD-Wechsler geliefert
Fourni avec le changeur de CD/MD
In dotazione con il cambia CD/MD
Geleverd met de CD/MD-wisselaar
Supplied with XA-C30
Mit dem XA-C30 geliefert
Fourni avec le XA-C30
In dotazione con il modello XA-C30
Geleverd met de XA-C30
BUS AUDIO IN
AUDIO OUT FRONT
AUDIO OUT REAR
REMOTE IN
BUS CONTROL IN
from car aerial*1
von Autoantenne*1
de l'antenne de la voiture*1
dell'antenna dell'auto*1
van een auto-antenne*1
Fuse (10 A)
Sicherung (10 A)
Fusible (10 A)
Fusibile (10 A)
Zekering (10 A)
Max. supply current 0.3 A
max. Versorgungsstrom 0,3 A
Courant d'alimentation maximum 0,3 A
Alimentazione massima fornita 0,3 A
Max. voedingsstroom 0,3 A
AMP REM
Blue/White striped
Blauweiß
Raye bleu/blanc
A strisce blu e bianche
Blauw/wit gestreept
Light blue
Hellblau
Bleu ciel
Azzurro
Hemelsblauw
ATT
from the car's power connector
vom Stromanschluss des Fahrzeugs
du connecteur d'alimentation de la voiture
dal connettore di alimentazione dell'auto
van de autovoedingsstekker
from the speaker connector
vom Lautsprecheranschluss des Fahrzeugs
du connecteur de haut-parleur de la voiture
dal connettore dell'diffusore dell'auto
van de autoluidsprekerstekker
See "Power connection diagram" on the reverse side for details.
Näheres dazu finden Sie im „Stromanschlussdiagramm".
Bliktterm Sie dazu bitte um.
Voir le "Schéma de connexion d'alimentation" au verso pour plus de détails.
Per ulteriori informazioni, vedere "Diagramma dei collegamenti di alimentazione" che si trova sul retro.
Zie "Voedingsaansluitschema" op de achterkant voor meer details.
Positions 1, 2, 3 and 6 do not have pins.
An Position 1, 2, 3 und 6 befinden sich keine Stifte.
Les positions 1, 2, 3 et 6 ne comportent pas de broches.
Le posizioni 1, 2, 3 e 6 non hanno piedini.
De posities 1, 2, 3 en 6 hebben geen pins.
Negative polarity positions 2, 4, 6, and 8 have striped cords.
An den negativ gepolten Positionen 2, 4, 6 und 8 befinden sich gestreifte Adern.
Les positions de polarité négative 2, 4, 6 et 8 sont dotées de cordons rayés.
Le posizioni a polarità negativa 2, 4, 6 e 8 hanno cavi rigati.
De posities voor negatieve polariteit (2, 4, 6 en 8) hebben gestreepte kabels.

*1 **Note for the aerial connecting**
If your car aerial is an ISO (International Organisation for Standardisation) type, use the supplied adaptor ⑤ to connect it. First connect the car aerial to the supplied adaptor, then connect it to the aerial jack of the master unit.
*1 **Insert with the cord upwards**
*1 **RCA pin cord (not supplied)**

*1 **Hinweis zum Anschließen der Antenne**
Wenn Ihre Fahrzeugantenne der ISO-Norm (ISO = International Organization for Standardization - Internationale Normungsgemeinschaft) entspricht, schließen Sie sie mithilfe des mitgelieferten Adapters ⑤ an. Verbinden Sie zuerst die Fahrzeugantenne mit dem mitgelieferten Adapter und verbinden Sie diesen dann mit der Antennenbuchse des Hauptgeräts.
*1 **Mit dem Kabel nach oben einsetzen**
*2 **Cinchkabel (nicht mitgeliefert)**

*1 **Remarque sur le raccordement de l'antenne**
Si votre antenne de voiture est de type ISO (Organisation internationale de normalisation), utilisez l'adaptateur fourni ⑤ pour la raccorder.
Raccordez d'abord l'antenne de voiture à l'adaptateur fourni et, ensuite, à la prise d'antenne de l'appareil principal.
*1 **Insérez avec le câble vers le haut**
*2 **Cordon à broche RCA (non fourni)**

*1 **Nota per il collegamento dell'antenna**
Se l'antenna dell'auto è di tipo ISO (International Organisation for Standardisation), utilizzare l'adattatore ⑤ in dotazione per collegarla.
Collegare prima l'antenna della macchina all'adattatore in dotazione, quindi collegarla alla presa dell'antenna dell'apparecchio principale.
*1 **Inserire con il cavo rivolto verso l'alto**
*2 **Cavo a piedini RCA (non in dotazione)**

*1 **Opmerking bij de antenne-aansluiting**
Indien uw auto is uitgerust met een antenne van het type ISO (Internationaal Organisatieon for Standardization), moet u die aansluiten met behulp van de meegeleverde adapter ⑤.
Sluit eerst de auto-antenne aan op de meegeleverde adapter en vervolgens de antennestekker op het hoofdtoestel.
*1 **Plaatsen met het snoer naar boven**
*2 **Tulpstekkersnoer (niet bijgeleverd)**

Cautions

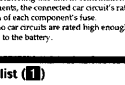
- This unit is designed for negative earth 12 V DC operation only.
- Do not get the wires under a screw, or caught in moving parts (e.g. seat railing).
- Before making connections, turn the car ignition off to avoid short circuits.
- Connect the power connecting cord ④ to the unit and speakers before connecting it to the auxiliary power connector.
- **Run all earth wires to a common earth point.**
- Be sure to insulate any loose unconnected wires with electrical tape for safety.

Notes on the power supply cord (yellow)
- When connecting this unit in combination with other stereo components, the connected car circuit's rating must be higher than the sum of each component's fuse.
- When no car circuits are rated high enough, connect the unit directly to the battery.

Parts list (1)

- The numbers in the list are keyed to those in the instructions.
- The bracket ① and the protection collar ④ are attached to the unit before shipping. Before mounting the unit, use the release keys ⑦ to remove the bracket ① and the protection collar ④ from the unit. For details, see "Removing the protection collar and the bracket (1)" on the reverse side of the sheet.
- **Keep the release keys ⑦ for the future use as they are also necessary if you remove the unit from your car.**

Caution
Handle the bracket ① carefully to avoid injuring your fingers.



Note
Before installing, make sure that the catches on both sides of the bracket ① are bent inwards 2 mm. If the catches are straight or bent outwards, the unit will not be installed securely and may spring out.

Connection example (2)

Notes (2-A)
- *Be sure to connect the earth cord before connecting the amplifier.*
- *If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.*

Tip (2-B, 3-B)
For connecting two or more CD/MD changers, the source selector XA-C30 (optional) is necessary (CDX-CA680X only).

Connection diagram (3)

A To AMP. REMOTE IN of an optional power amplifier
This connection is only for amplifiers. Connecting any other system may damage the unit.

B To the interface cable of a car telephone

Warning
If you have a power aerial without a relay box, connecting this unit with the supplied power connecting cord ④ may damage the aerial.

Notes on the control leads
- *The power aerial control lead (blue) supplies + 12 V DC when you turn on the tuner or when you activate the AF (Alternative Frequency), TA (Traffic Announcement) function.*
- *When your car has built-in FM/MW/LW aerial in the rear/side glass, connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.*
- *A power aerial without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the earth lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker wires installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker cords to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Vorsicht

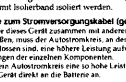
- Dieses Gerät ist ausschließlich für den Betrieb bei 12 V Gleichstrom (negative Erdung) bestimmt.
- Achten Sie darauf, dass die Kabel nicht unter einer Schraube oder zwischen beweglichen Teilen wie z. B. in einer Sitzschiene eingeklemmt werden.
- Schalten Sie, bevor Sie irgendwelche Anschlüsse vornehmen, die Zündung des Fahrzeugs aus, um Kurzschlüsse zu vermeiden.
- Verbinden Sie das Stromversorgungskabel ④ mit dem Gerät und den Lautsprechern, bevor Sie es mit dem Hilfsstromanschluss verbinden.
- **Schließen Sie alle Erdungskabel an einen gemeinsamen Massepunkt an.**
- Aus Sicherheitsgründen müssen alle losen, nicht angeschlossenen Drähte mit Isolierband isoliert werden.

Hinweise zum Stromversorgungskabel (gelb)
- Wenn Sie dieses Gerät zusammen mit anderen Stereokomponenten anschließen, muss der Autostromkreis, an den das Gerät angeschlossen sind, eine höhere Leistung aufweisen als die Summe der Sicherungen der einzelnen Komponenten.
- Wenn kein Autostromkreis eine so hohe Leistung aufweist, schließen Sie das Gerät direkt an die Batterie an.

Teileliste (1)

- Die Nummern in der Liste sind dieselben wie im Erläuterungstext.
- Die Halterung ① und die Schutzumrandung ④ werden vor dem Ausliefern am Gerät angebracht. Bevor Sie das Gerät montieren, nehmen Sie die Halterung ① und die Schutzumrandung ④ mithilfe der Löseschlüssel ⑦ bitte vom Gerät ab. Einzelheiten dazu finden Sie unter "Abnehmen der Schutzumrandung und der Halterung (1)" auf der Rückseite dieses Blattes.
- **Bewahren Sie die Löseschlüssel ⑦ für den späteren Gebrauch auf. Sie werden z. B. benötigt, wenn Sie das Gerät aus dem Fahrzeug ausbauen wollen.**

Sicherheitshinweis
Seien Sie beim Umgang mit der Halterung ① vorsichtig, damit Sie sich nicht die Hände verletzen.



Hinweis
Vergewissern Sie sich vor dem Installieren, dass die Verriegelungen an beiden Seiten der Halterung ① um 2 mm nach innen gebogen sind. Wenn die Verriegelungen gerade oder nach außen gebogen sind, lässt sich das Gerät nicht sicher installieren und kann herausspringen.

Anschlussbeispiel (2)

Hinweise (2-A)
- *Schließen Sie unbedingt zuerst das Massekabel an, bevor Sie den Verstärker anschließen.*
- *Wenn Sie einen gesondert erhältlichen Endverstärker anschließen und den integrierten Verstärker nicht benutzen, wird der Signalton deaktiviert.*

Tipp (2-B, 3-B)
Zum Anschließen von zwei oder mehr CD/MD-Wechslern wird der gesondert erhältliche Signalquellenwähler XA-C30 benötigt (nur CDX-CA680X).

Anschlussdiagramm (3)

A An AMP REMOTE IN des gesondert erhältlichen Endverstärkers
Dieser Anschluss ist ausschließlich für Verstärker gedacht. Schließen Sie nichts anderes daran an. Andernfalls kann das Gerät beschädigt werden.

B An Schnittstellenkabel eines Autotelefons

Warnung
Wenn Sie eine Motorantenne ohne Relaiskästchen verwenden, kann durch Anschließen dieses Geräts mit dem mitgelieferten Stromversorgungskabel ④ die Antenne beschädigt werden.

Hinweise zu den Steuerleitungen
- *Die Motorantenn-Steuerleitung (blau) liefert + 12 V Gleichstrom, wenn Sie Ihren Einschalten oder die AF- (Alternativfrequenzsuche) oder die TA- (Verkehrsdurchsagen) aktivieren.*
- *Wenn das Fahrzeug mit einer in der Heck-/Seitenfensterscheibe integrierten FM (UKW)/MW/LW-Antenne ausgestattet ist, schließen Sie die Motorantennen-Steuerleitung (blau) oder die Zubehörstromversorgungsleitung (rot) an den Stromversorgungsanschluss des vorhandenen Antennenverstärkers an. Näheres dazu erfahren Sie bei Ihrem Händler.*
- *Es kann nur eine Motorantenne mit Relaiskästchen angeschlossen werden.*

Stromversorgung des Speichers
Wenn die gelbe Stromversorgungsleitung angeschlossen ist, wird der Speicher stets (auch bei ausgeschalteter Zündung) mit Strom versorgt.

Hinweise zum Lautsprecheranschluss
- *Schalten Sie das Gerät aus, bevor Sie die Lautsprecher anschließen.*
- *Verwenden Sie Lautsprecher mit einer Impedanz zwischen 4 und 8 Ohm und ausreichender Belastbarkeit. Ansonsten können die Lautsprecher beschädigt werden.*
- *Verbinden Sie die Lautsprecheranschlüsse nicht mit dem Wagenchassis und verbinden Sie auch nicht die Anschlüsse des rechten mit denen des linken Lautsprechers.*
- *Verbinden Sie die Masseleitung dieses Geräts nicht mit den negativen (–) Lautsprecheranschluss.*
- *Versuchen Sie nicht, Lautsprecher parallel anzuschließen.*
- *An die Lautsprecheranschlüsse dieses Geräts dürfen nur Passivlautsprecher angeschlossen werden. Schließen Sie keine Aktivlautsprecher (Lautsprecher mit eingebauten Verstärkern) an, da das Gerät sonst beschädigt werden könnte.*
- *Um Fehlfunktionen zu vermeiden, verwenden Sie nicht die im Fahrzeug installierten, integrierten Lautsprecherleitungen, wenn am Ende eine gemeinsame negative (–) Leitung für den rechten und den linken Lautsprecher verwendet wird.*
- *Verbinden Sie nicht die Lautsprecherkabel des Geräts miteinander.*

Hinweis zum Anschließen
Wenn Lautsprecher und Verstärker nicht richtig angeschlossen sind, erscheint "FAILURE" im Display. Vergewissern Sie sich in diesem Fall, dass Lautsprecher und Verstärker richtig angeschlossen sind.

Précautions

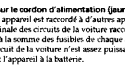
- Cet appareil est conçu pour fonctionner sur un courant continu de 12 V avec une mise à la masse négative uniquement.
- Évitez de fixer des vis sur les câbles ou de coincer ceux-ci dans des pièces mobiles (par exemple, armature de siège).
- Avant d'effectuer des raccordements, éteignez le moteur pour éviter les courts-circuits.
- Branchez le cordon d'alimention ④ sur l'appareil et les haut-parleurs avant de le brancher sur le connecteur d'alimentation auxiliaire.
- **Rassemblez tous les fils de terre en un point de masse commun.**
- Par mesure de sécurité, veillez à isoler tout fil ou câble non connecté avec du chatterton.

Remarques sur le cordon d'alimentation (jaune)
- Lorsque cet appareil est raccordé à d'autres appareils stéréo, la valeur nominale des circuits de la voiture raccordée doit être supérieure à la somme des fusibles de chaque appareil.
- Si aucun circuit de la voiture n'est assez puissant, raccordez directement l'appareil à la batterie.

Liste des composants (1)

- Les numéros de la liste correspondent à ceux des instructions.
- Le support ① et le tour de protection ④ sont fixés à l'appareil avant de quitter l'usine. Avant le montage de l'appareil, utilisez les clés de déblocage ⑦ pour détacher le support ① et le tour de protection ④ de l'appareil. Pour de plus amples informations, reportez-vous à la section "Retrait du tour de protection et du support (1)" au verso de la feuille.
- **Conservez les clés de déblocage ⑦ pour une utilisation ultérieure car vous en aurez également besoin pour retirer l'appareil de votre véhicule.**

Précaution
Manipulez précautionneusement le support ① pour éviter de vous blesser aux doigts.



Remarque
Avant l'installation, assurez-vous que les loquets des deux côtés du support ① sont bien pliés de 2 mm vers l'intérieur. Si les loquets sont droits ou plies vers l'extérieur, l'appareil ne peut pas être fixé solidement et peut se détacher.

Exemple de raccordement (2)

Remarques (2-A)
- *Raccordez d'abord le fil de masse avant de connecter l'amplificateur.*
- *Si vous raccordez un amplificateur de puissance en option et que vous n'utilisez pas l'amplificateur intégré, le bip sonore est désactivé.*

Conseil (2-B, 3-B)
Dans le cas du raccordement de deux changeurs de CD/MD ou plus, le sélecteur de source XA-C30 (en option) est indispensable (CDX-CA680X uniquement).

Schéma de connexion (3)

A Au niveau du AMP REMOTE IN d'un amplificateur de puissance en option
Ce raccordement existe seulement pour les amplificateurs. Le raccordement à tout autre système peut endommager l'appareil.

B Vers le câble d'interface d'un téléphone de voiture

Avertissement
Si vous disposez d'une antenne électrique sans boîtier de relais, le branchement de cet appareil au moyen du cordon d'alimentation fourni ④ risque d'endommager l'antenne.

Remarques sur les fils de commande
- *Le fil de commande (bleu) fournit du courant continu de + 12 V lorsque vous allumez le récepteur ou lorsque vous activez la fonction TA (messages de radiodiffusion) en AF (Fréquence alternative).*
- *Lorsque votre voiture est équipée d'une antenne FM/MW/LW intégrée dans la vitre arrière/latérale, raccordez le fil de commande de l'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) à la borne de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre revendeur.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

Connexion pour la conservation de la mémoire
Lorsque le fil d'entrée d'alimentation jaune est connecté, le circuit de la mémoire est alimenté en permanence même si la clé de contact est en position d'arrêt.

Remarques sur la connexion des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettre l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms et une capacité adéquate sous peine de les endommager.*
- *Ne pas raccorder les bornes du système de haut parleurs au châssis de la voiture et ne pas connecter les bornes du haut-parleur droit à celles du haut-parleur gauche.*
- *Ne pas raccorder le câble de masse de cet appareil à la borne négative (–) du haut-parleur.*
- *Ne pas tenter de raccorder les haut-parleurs en parallèle.*
- *Ne pas connecter d'enceintes actives (avec amplificateurs intégrés) aux bornes d'enceinte de cet appareil, pour éviter d'endommager l'appareil. Veiller à raccorder des enceintes passives uniquement.*
- *Pour éviter tout dysfonctionnement, ne pas utiliser pas les fils des haut-parleurs intégrés installés dans votre voiture si l'appareil dispose d'un fil négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne pas raccorder entre eux les cordons des haut-parleurs de l'appareil.*

Remarque sur le raccordement
Si les enceintes et l'amplificateur ne sont pas raccordés correctement, le message "FAILURE" s'affiche. Dans ce cas, assurez-vous que les enceintes et l'amplificateur sont raccordés correctement.

Attenzione

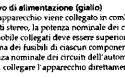
- Questo apparecchio è stato progettato per l'uso solo a 12 V CC con massa negativa.
- Evitare che i cavi rimangano bloccati da una vite o incastrati nelle parti mobili (ad esempio nelle guide scorrevoli dei sedili).
- Prima di effettuare i collegamenti, spegnere il motore dell'automobile onde evitare di causare cortocircuiti.
- Collegare il cavo di collegamento dell'alimentazione ④ all'apparecchio e ai diffusori prima di collegarlo al connettore di alimentazione ausiliare.
- **Portare tutti i cavi di massa a un punto di massa comune.**
- Per sicurezza, assicurarsi di isolare qualsiasi cavo non collegato mediante apposito nastro.

Note sul cavo di alimentazione (giallo)
- Se questo apparecchio viene collegato in combinazione con altri componenti stereo, la potenza nominale dei circuiti dell'automobile collegati deve essere superiore a quella prodotta dalla somma dei fusibili di ciascun componente.
- Se la potenza nominale dei circuiti dell'automobile non è sufficiente, collegare l'apparecchio direttamente alla batteria.

Elenco dei componenti (1)

- I numeri nella lista corrispondono a quelli riportati nelle istruzioni.
- La staffa ① e la cornice di protezione ④ vengono applicati all'unità in fabbrica. Prima di installare l'unità, utilizzare le chiavi di rilascio ⑦ per rimuovere la staffa ① e la cornice di protezione ④ dall'apparecchio. Per ulteriori informazioni, vedere "Rimozione della staffa e della cornice di protezione (1)" sul lato opposto del foglio.
- **Conservare le chiavi di rilascio ⑦ per un uso futuro in quanto sono necessarie per rimuovere l'unità dall'auto.**

Attenzione
Maneggiare la staffa ① con cautela per evitare di ferirsi le mani.



Nota
Prima di installare l'unità, accertarsi di ripiegare i fermi presenti su entrambe i lati della staffa ① verso l'interno di 2 mm. Se i fermi sono diritti o ripiegati verso l'esterno, l'apparecchio non verrà installato in modo sicuro e potrebbe non essere saldo.

Esempi di collegamento (2)

Note (2-A)
- *Assicurarsi di collegare il cavo di terra prima di collegare l'apparecchio all'amplificatore.*
- *Se si collega un amplificatore di potenza opzionale e non si utilizza l'amplificatore incorporato, il segnale acustico verrà disattivato.*

Suggerimento (2-B, 3-B)
Per collegare due o più cambia CD/MD, si deve utilizzare il selettore di fonte XA-C30 (opzionale) (solo CDX-CA680X).

Schema di collegamento (3)

A A AMP. REMOTE IN di un amplificatore di potenza opzionale
Questo collegamento è riservato esclusivamente agli amplificatori. Non collegare un tipo di sistema diverso onde evitare di causare danni all'apparecchio.

B Al cavo di interfaccia di un telefono per auto

Avvertenza
Quando si collega l'apparecchio con il cavo di alimentazione in dotazione ④ si potrebbe danneggiare l'antenna elettrica se questa non ha la scatola a relè.

Note sui cavi di controllo
- *Il cavo (blu) di controllo dell'antenna elettrica fornisce alimentazione pari a + 12 V CC quando si attiva il sintonizzatore o le funzioni TA (notiziario sul traffico) e AF (frequenza alternativa).*
- *Se l'automobile è dotata di antenna FM/MW/LW incorporata nel vetro posteriore/laterale, collegare il cavo (blu) di controllo dell'antenna elettrica o il cavo (rosso) di ingresso dell'alimentazione opzionale al terminale di alimentazione del preamplificatore dell'antenna esistente. Per ulteriori informazioni, consultare il proprio fornitore.*
- *Non è possibile usare un'antenna elettrica senza scatola a relè con questo apparecchio.*

Collegamento per la conservazione della memoria
Quando il cavo di ingresso alimentazione giallo è collegato, viene sempre fornita alimentazione al circuito di memoria anche quando l'interruttore di accensione è spento.

Note sul collegamento dei diffusori
- *Prima di collegare i diffusori spegnere l'apparecchio.*
- *Usare diffusori di impedenza compresa tra 4 e 8 ohm e con capacità di potenza adeguata, onde evitare che vengano danneggiati.*
- *Non collegare i terminali del sistema diffusori al telaio dell'auto e non collegare i terminali del diffusore destro a quelli del diffusore sinistro.*
- *Non collegare il cavo di terra di questo apparecchio al terminale negativo (–) del diffusore.*
- *Non collegare i diffusori in parallelo.*
- *Assicurarsi di collegare soltanto diffusori passivi, poiché il collegamento di diffusori attivi, dotati di amplificatori incorporati, ai terminali dei diffusori potrebbe danneggiare l'apparecchio.*
- *Per evitare problemi di funzionamento, non utilizzare i cavi dei diffusori incorporati installati nell'automobile se l'apparecchio condivide un cavo comune negativo (–) per i diffusori destro e sinistro.*
- *Non collegare fra loro i cavi dei diffusori dell'apparecchio.*

Nota sul collegamento
Se l'amplificatore e il diffusore non sono collegati correttamente, "FAILURE" viene visualizzato nel display. In tal caso, accertarsi che l'amplificatore e il diffusore siano collegati correttamente.

Let op!

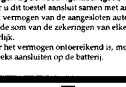
- Dit apparaat is ontworpen voor gebruik op gelijkstroom van een 12 Volts auto-accu, negatief geaard.
- Zorg ervoor dat de draden niet onder een schroef of tussen bewegende onderdelen (b.v. zetelrail) terechtkomen.
- Alvorens aansluitingen te verrichten moet u het contact uitzetten om kortsluiting te vermijden.
- Sluit het netsnoer ④ aan op het toestel en de luidsprekers voordat u het op de hulpvoedingsaansluiting aansluit.
- **Sluit alle aarddraden op een gemeenschappelijk aardpunt aan.**
- Voorzie niet aangesloten draden om veiligheidsredenen altijd van isolatietape.

Opmerkingen bij de voedingskabel (geel)
- Wanneer u dit toestel aansluit samen met andere componenten, moet het vermogen van de aangesloten autostroomkring groter zijn dan de som van de zekeringen van elke component afzonderlijk.
- Wanneer het vermogen onloorekend is, moet u het toestel rechtstreeks aansluiten op de batterij.

Onderdelenlijst (1)

- De nummers in de afbeelding verwijzen naar die in de montage-aanwijzingen.
- De beugel ① en de beschermende rand ④ worden bevestigd op het toestel voordat dit wordt verzonden. Voordat u het toestel plaatst, moet u de ontgrendelingssleutels ⑦ gebruiken om de beugel ① en de beschermende rand ④ te verwijderen van het toestel. Zie "De beschermende rand en de beugel verwijderen (1)" aan de achterzijde van dit vel voor meer informatie.
- **Bewaar de ontgrendelingssleutels ⑦ voor toekomstig gebruik omdat u deze ook nodig hebt om het toestel uit de auto te verwijderen.**

Opgelet
Houd de beugel ① voorzichtig vast zodat u uw vingers niet verwondt.



Opmerking
Voordat u het toestel installeert, moet u de grepen aan beide zijden van de beugel ① 2 mm naar binnen buigen. Als de grepen recht zijn of naar buiten gebogen, kan het toestel niet goed worden bevestigd en kan dit losschieten.

Voorbeeldaansluitingen (2)

Opmerkingen (2-A)
- *Sluit eerst de massakabel aan alvorens de versterker aan te sluiten.*
- *Als u een los verkrijgbare vermogensversterker aansluit en de ingebouwde versterker niet gebruikt, is de pieptoon uitgeschakeld.*

Tip (2-B, 3-B)
Om twee of meer CD/MD-wisselaars aan te sluiten, hebt u de geluidsbronkiezer XA-C30 (optioneel) nodig (Alleen voor de CDX-CA680X).

Aansluitschema (3)

A Naar AMP. REMOTE IN van een los verkrijgbare vermogensversterker
Deze aansluiting is alleen bedoeld voor versterkers. Door een ander systeem aan te sluiten kan het toestel worden beschadigd

B Naar het interface-snoer van een autotelefoon

Opgelet
Indien u een elektrische antenne heeft zonder relaiskast, kan het aansluiten van deze eenheid met het bijgeleverde netsnoer ④ de antenne beschadigen.

Opmerking betreffende de aansluitsnoeren
- *De antennevoedingskabel (blauw) levert + 12 V gelijkstroom wanneer u de tuner aanschakelt of de AF (Alternative Frequency), TA (Traffic Announcement) functie activeert.*
- *Wanneer uw auto is uitgerust met een FM/MW/LW-antenne in de achterruit/voorruit, moet u de antennevoedingskabel (blauw) of de hulpvoedingskabel (rood) aansluiten op de voedingsingang van de bestaande antenneversterker. Raadpleeg uw dealer voor meer details.*
- *Met dit apparaat is het niet mogelijk een automatische antenne zonder relaishuis te gebruiken.*

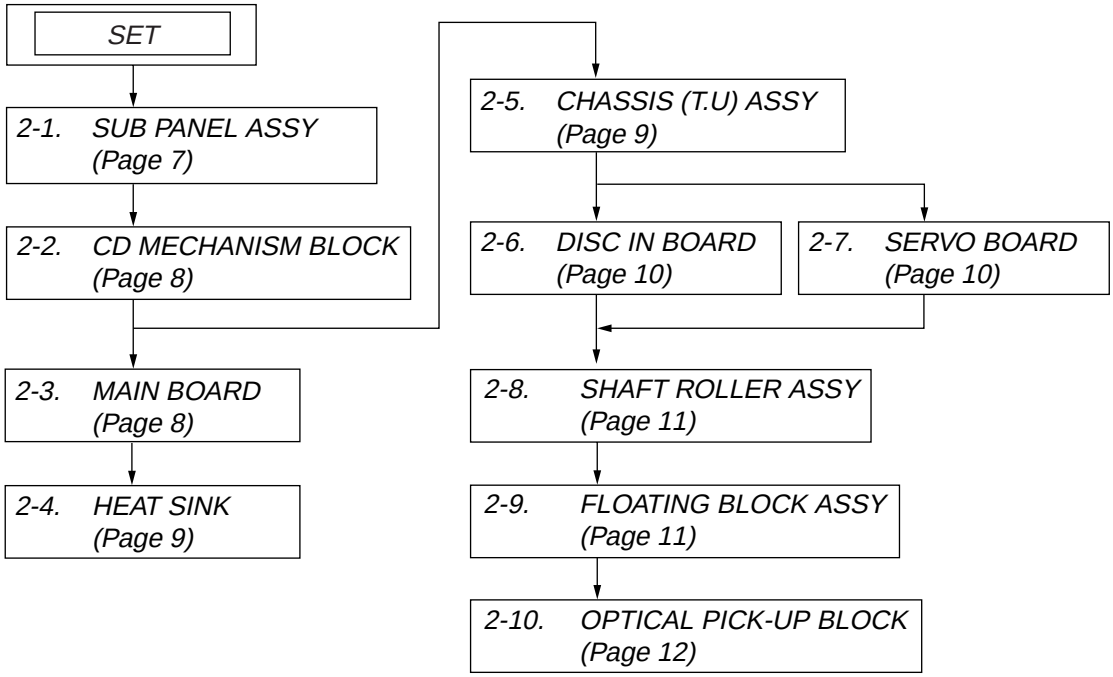
Instandhouden van het geheugen
Zolang de gele stroomkring is aangesloten, blijft de stroomvoorziening van het geheugen intact, ook wanneer het contact van de auto wordt uitgeschakeld.

Opmerkingen betreffende het aansluiten van de luidsprekers
- *Zorg dat het apparaat is uitgeschakeld, alvorens de luidsprekers aan te sluiten.*
- *Gebruik luidsprekers met een impedantie van 4 tot 8 Ohm en let op dat die het vermogen van de versterker kunnen verwerken. Als dit wordt verzuimd, kunnen de luidsprekers ernstig beschadigd raken.*
- *Verbind in geen geval de aansluitingen van de luidsprekers met het chassis van de auto en sluit de aansluitingen van de rechter en linker luidsprekers niet op elkaar aan.*
- *Verbind de massakabel van dit toestel niet met de negatieve (–) aansluiting van de luidsprekers.*
- *Probeer nooit de luidsprekers parallel aan te sluiten.*
- *Sluit geen actieve luidsprekers (met ingebouwde versterkers) aan op de luidsprekeraansluiting van dit apparaat. Dit zal leiden tot beschadiging van de actieve luidsprekers. Sluit dus altijd uitsluitend luidsprekers zonder ingebouwde versterker aan.*
- *Om defecten te vermijden mag u de bestaande luidsprekerbedrading in uw auto niet gebruiken wanneer er een gemeenschappelijke negatieve (–) draad is voor de rechter en linker luidsprekers.*
- *Verbind de luidsprekerdraden niet met elkaar.*

Opmerking over aansluiten
Als de luidspreker en versterker niet correct zijn aangesloten, wordt "FAILURE" in het display weergegeven. In dit geval moet u zorgen dat de luidspreker en versterker correct zijn aangesloten.

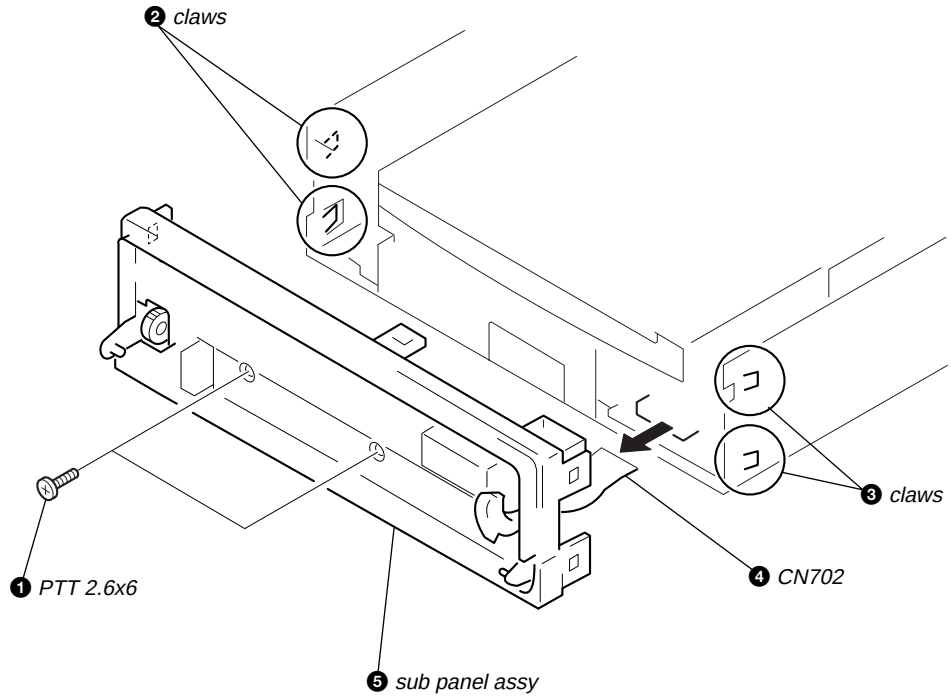
SECTION 2
DISASSEMBLY

Note : This set can be disassemble according to the following sequence.

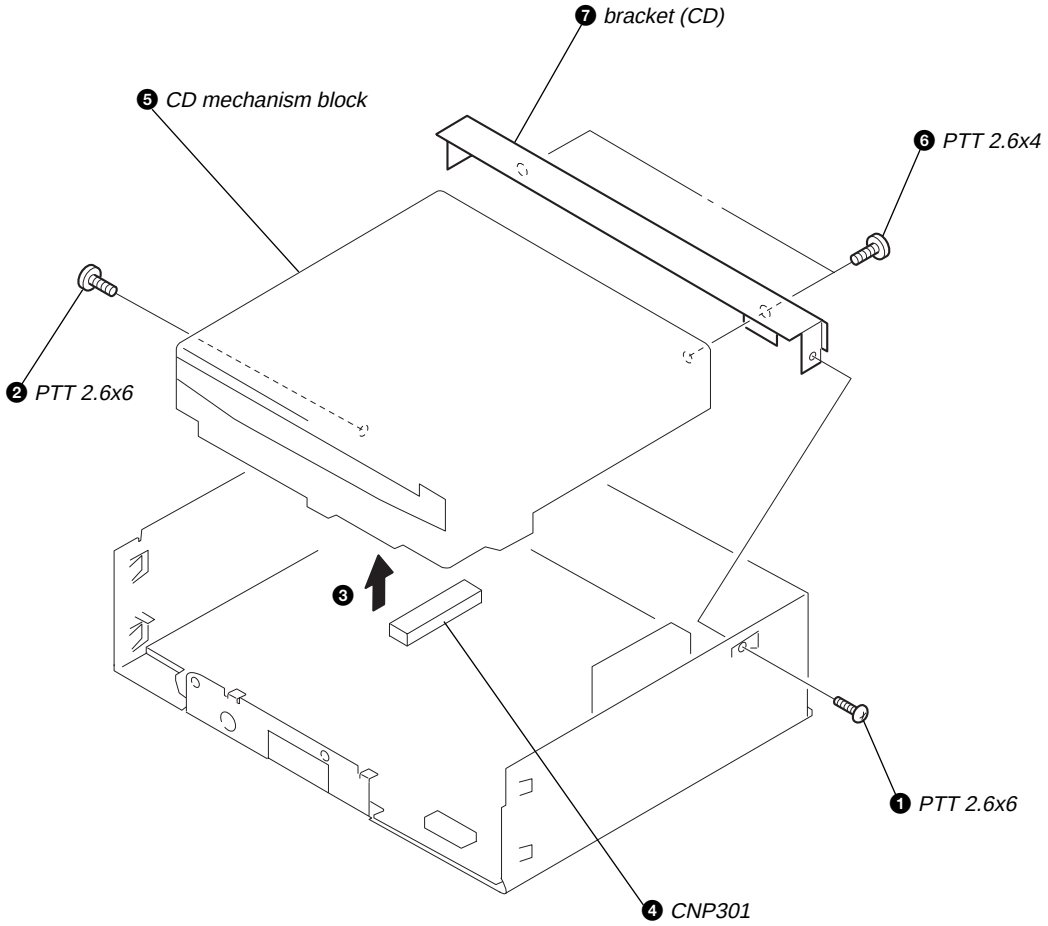

SET
2-1. SUB PANEL ASSY (Page 7)
2-2. CD MECHANISM BLOCK (Page 8)
2-3. MAIN BOARD (Page 8)
2-4. HEAT SINK (Page 9)
2-5. CHASSIS (T.U) ASSY (Page 9)
2-6. DISC IN BOARD (Page 10)
2-7. SERVO BOARD (Page 10)
2-8. SHAFT ROLLER ASSY (Page 11)
2-9. FLOATING BLOCK ASSY (Page 11)
2-10. OPTICAL PICK-UP BLOCK (Page 12)

Note : Follow the disassembly procedure in the numerical order given.

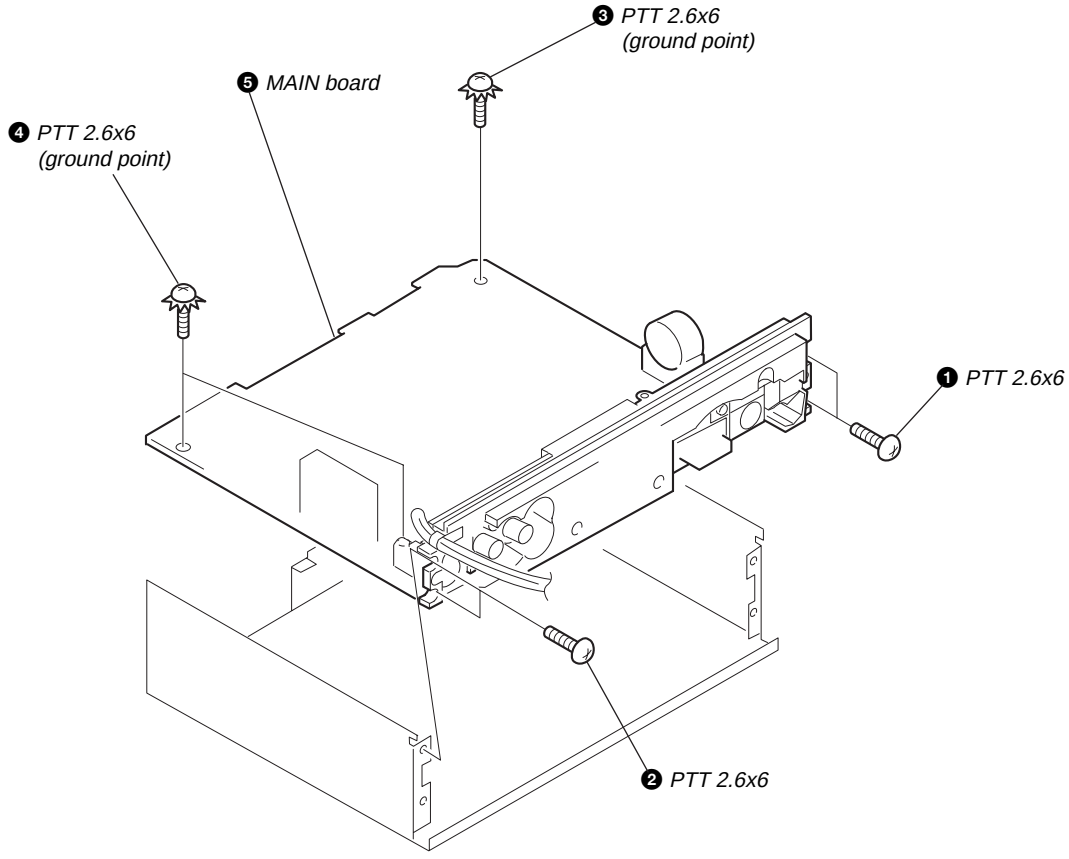
2-1. SUB PANEL ASSY



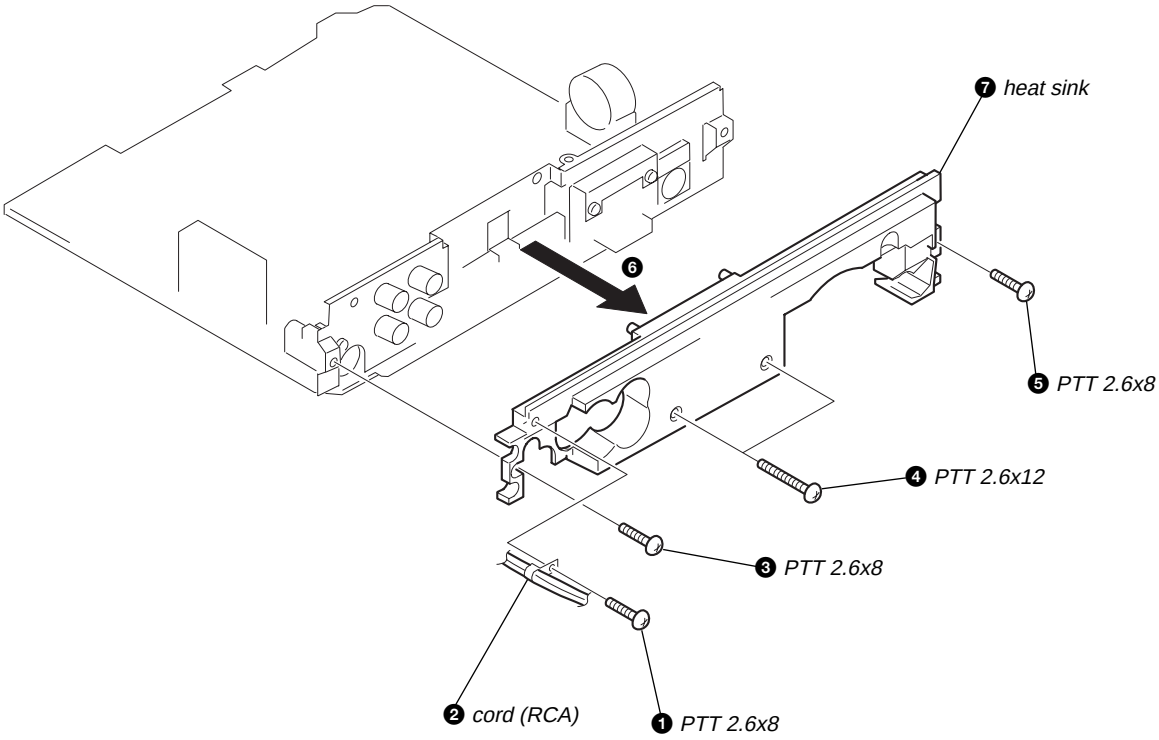
2-2. CD MECHANISM BLOCK



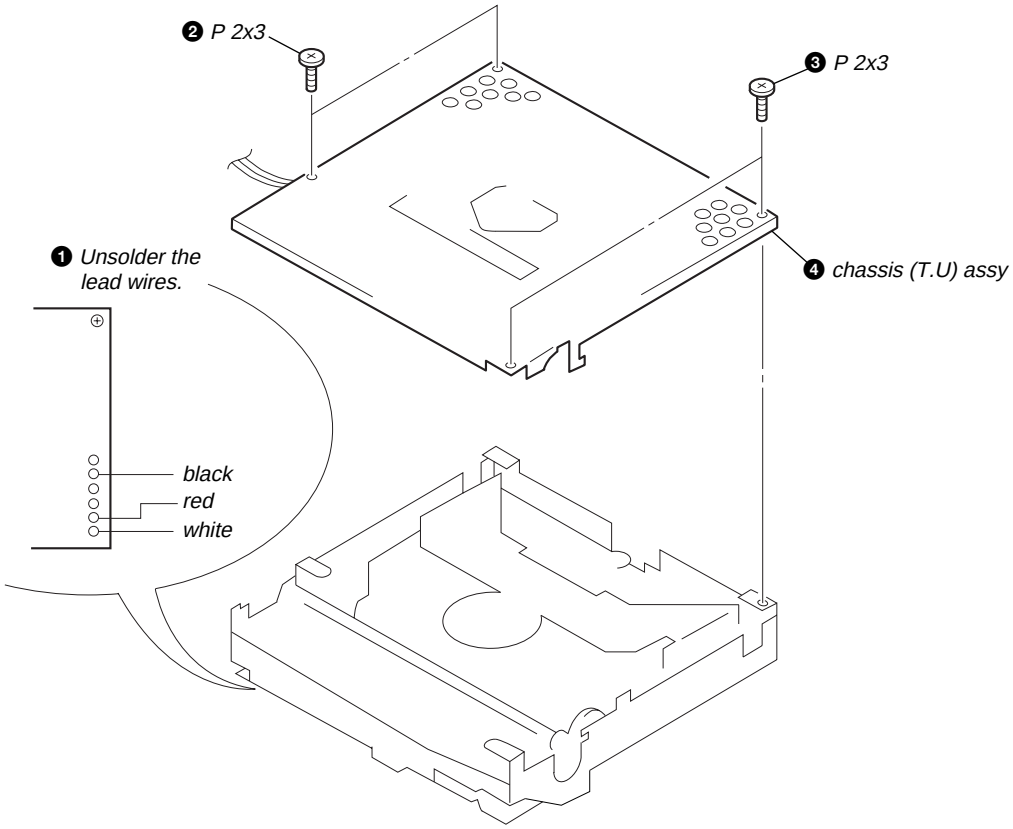
2-3. MAIN BOARD



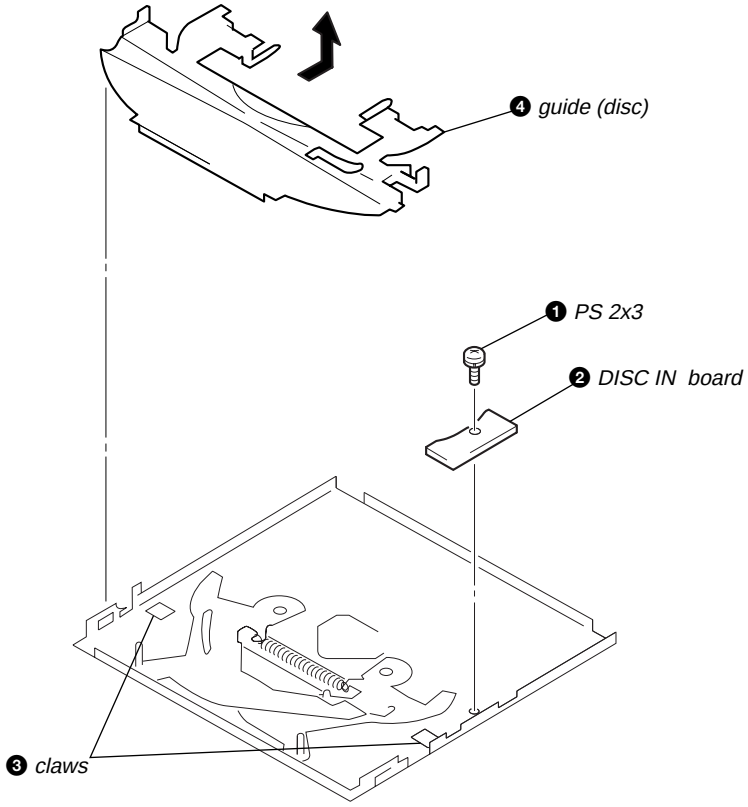
2-4. HEAT SINK



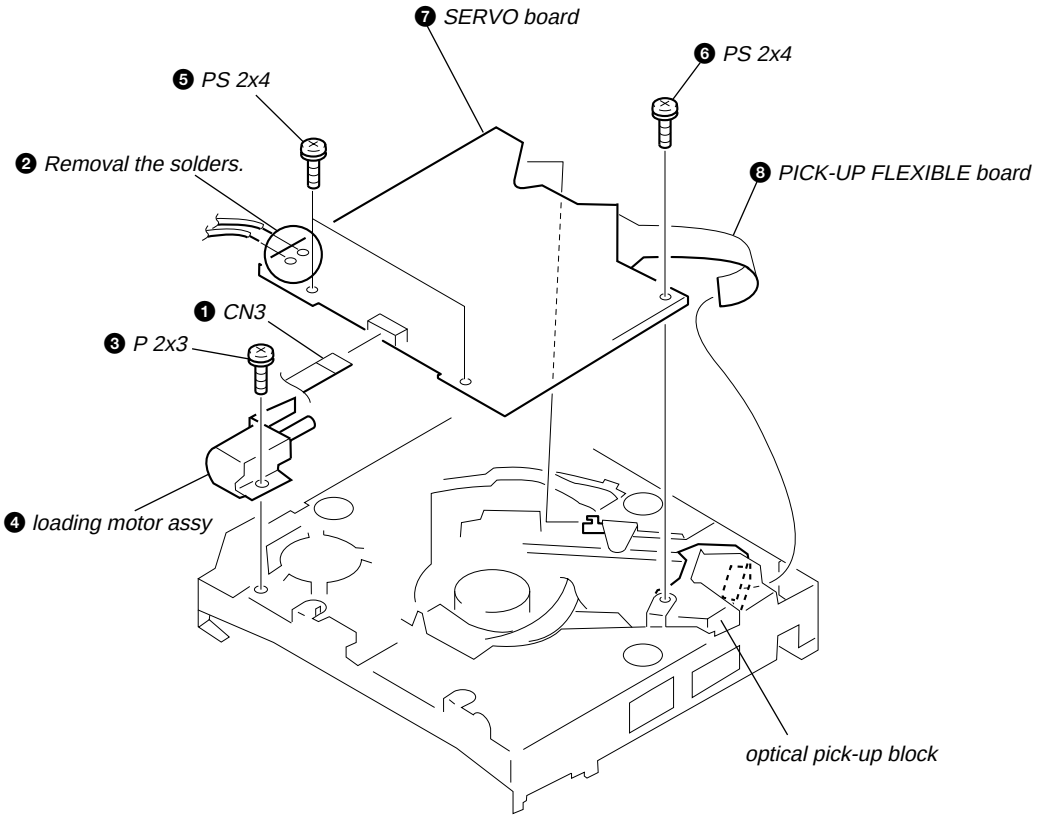
2-5. CHASSIS (T.U) ASSY



2-6. DISC IN BOARD



2-7. SERVO BOARD



2-8. SHAFT ROLLER ASSY

• When installing, take note of the positions arm (roller) and washers. (Fig. 1)

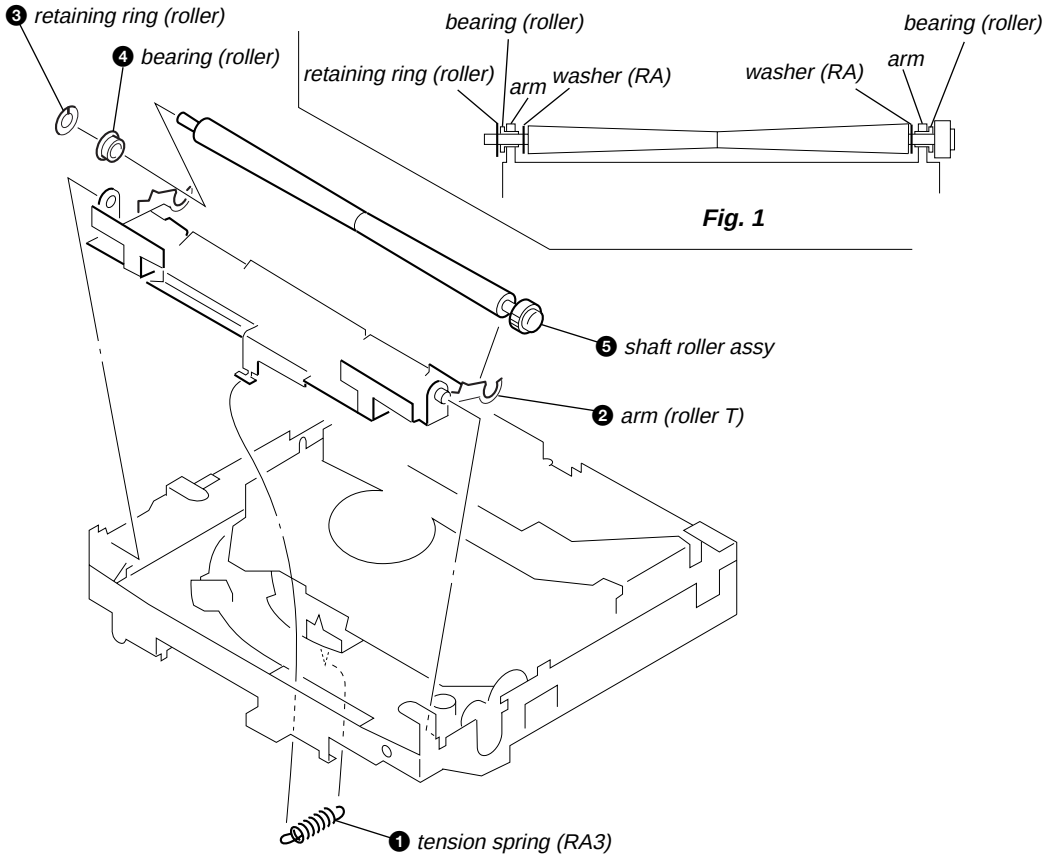
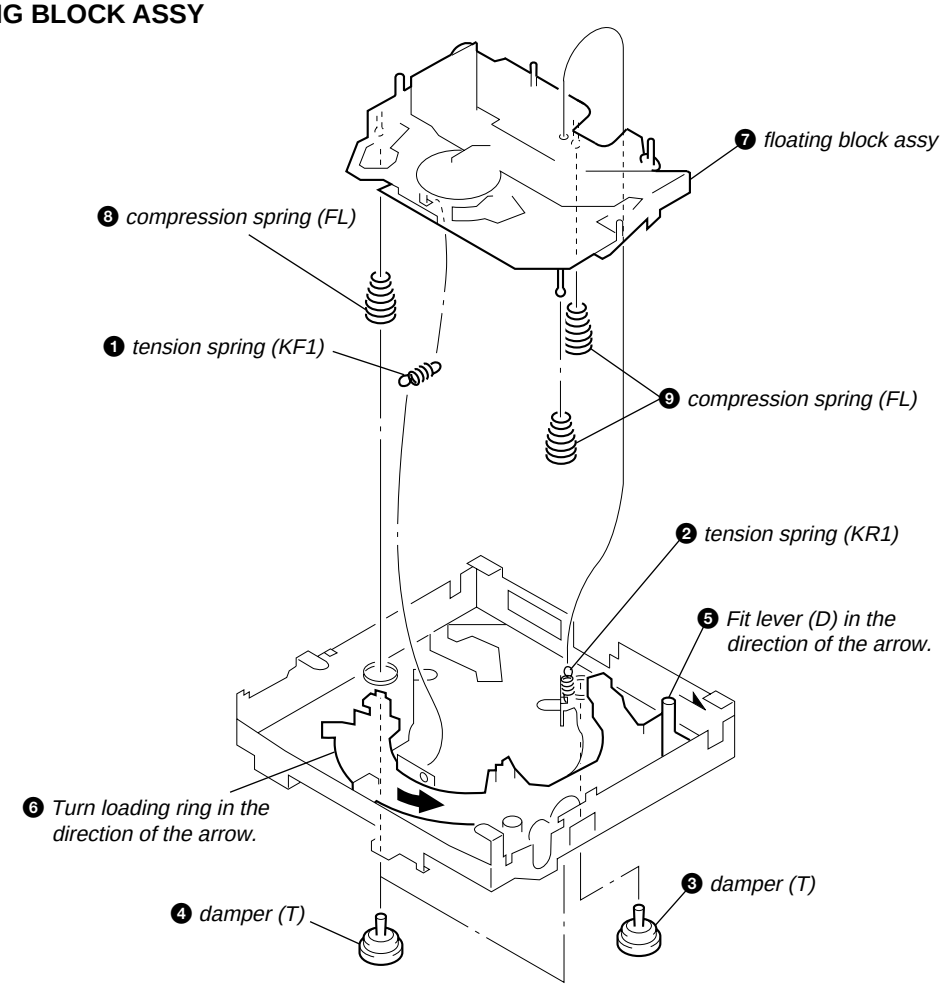
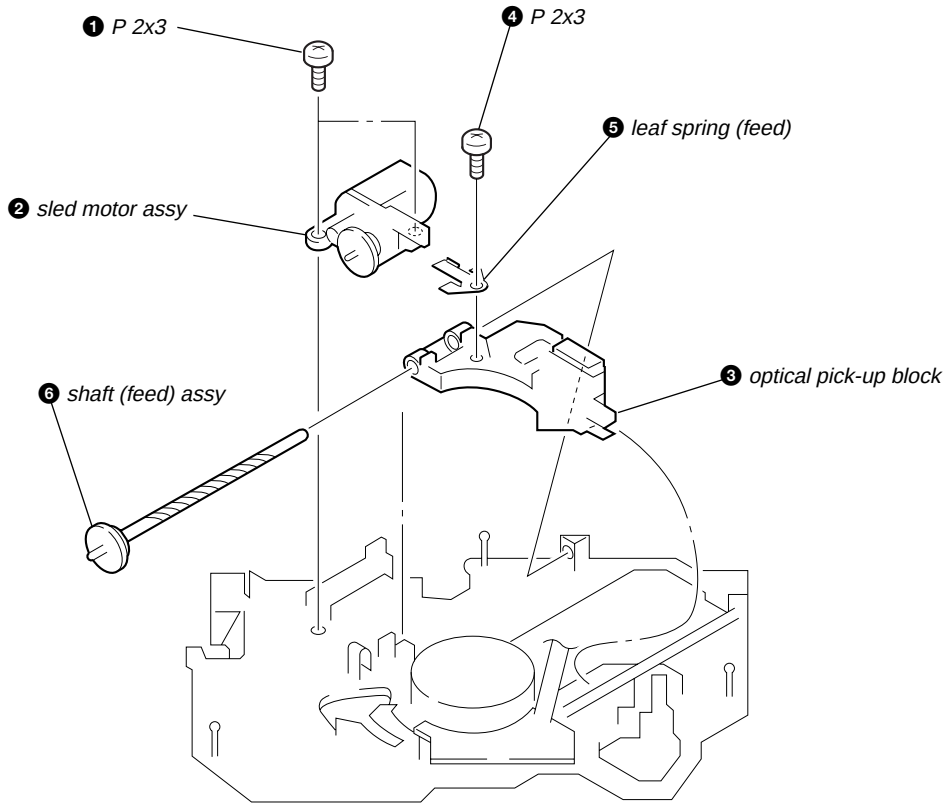


Fig. 1

2-9. FLOATING BLOCK ASSY


❼ floating block assy
❽ compression spring (FL)
❶ tension spring (KF1)
❾ compression spring (FL)
❷ tension spring (KR1)
❺ Fit lever (D) in the direction of the arrow.
❻ Turn loading ring in the direction of the arrow.
❸ damper (T)
❹ damper (T)

2-10. OPTICAL PICK-UP BLOCK



SECTION 3
DIAGRAMS

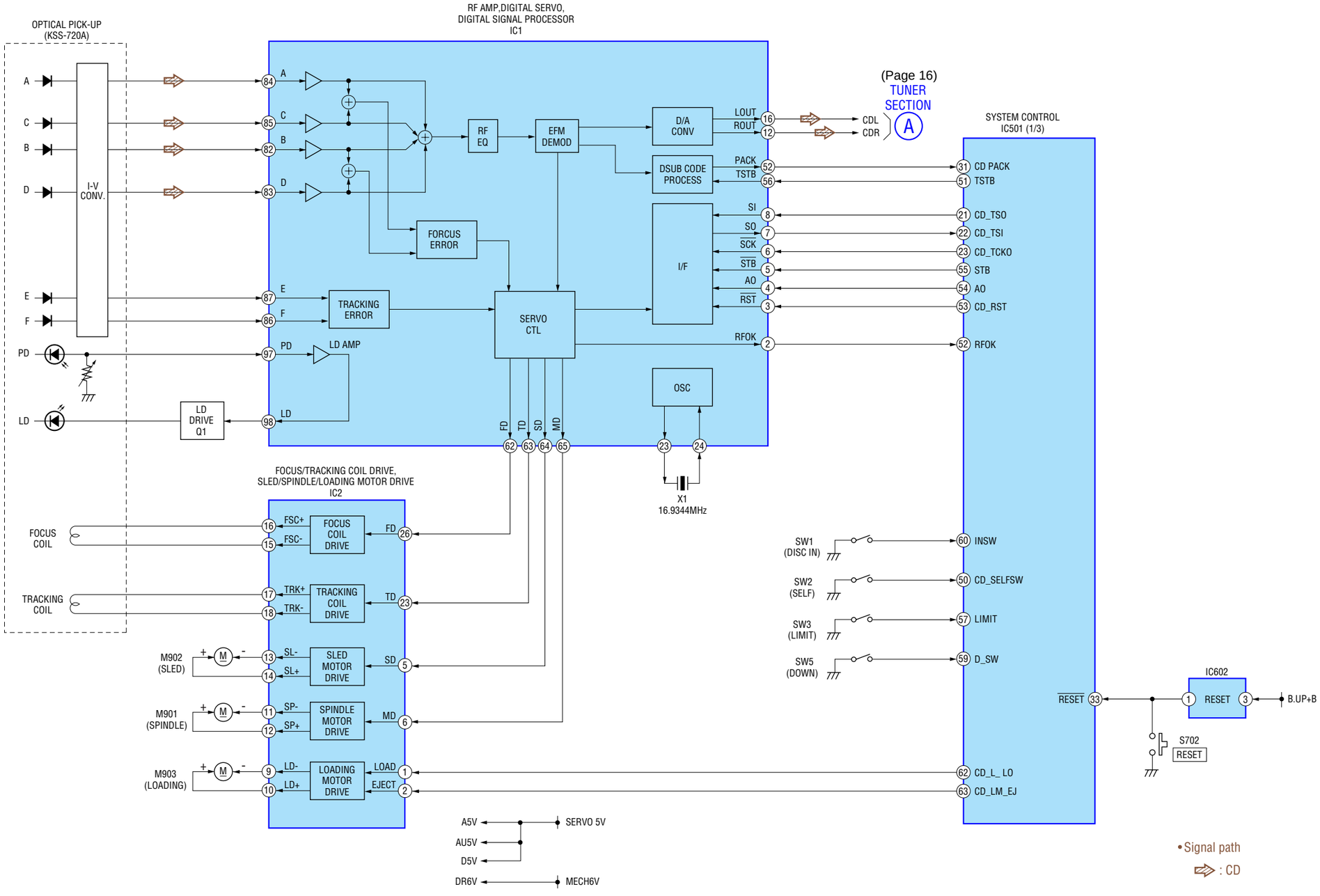
3-1. IC PIN DESCRIPTION

• IC501 MN101C49KSE (SYSTEM CONTROL)

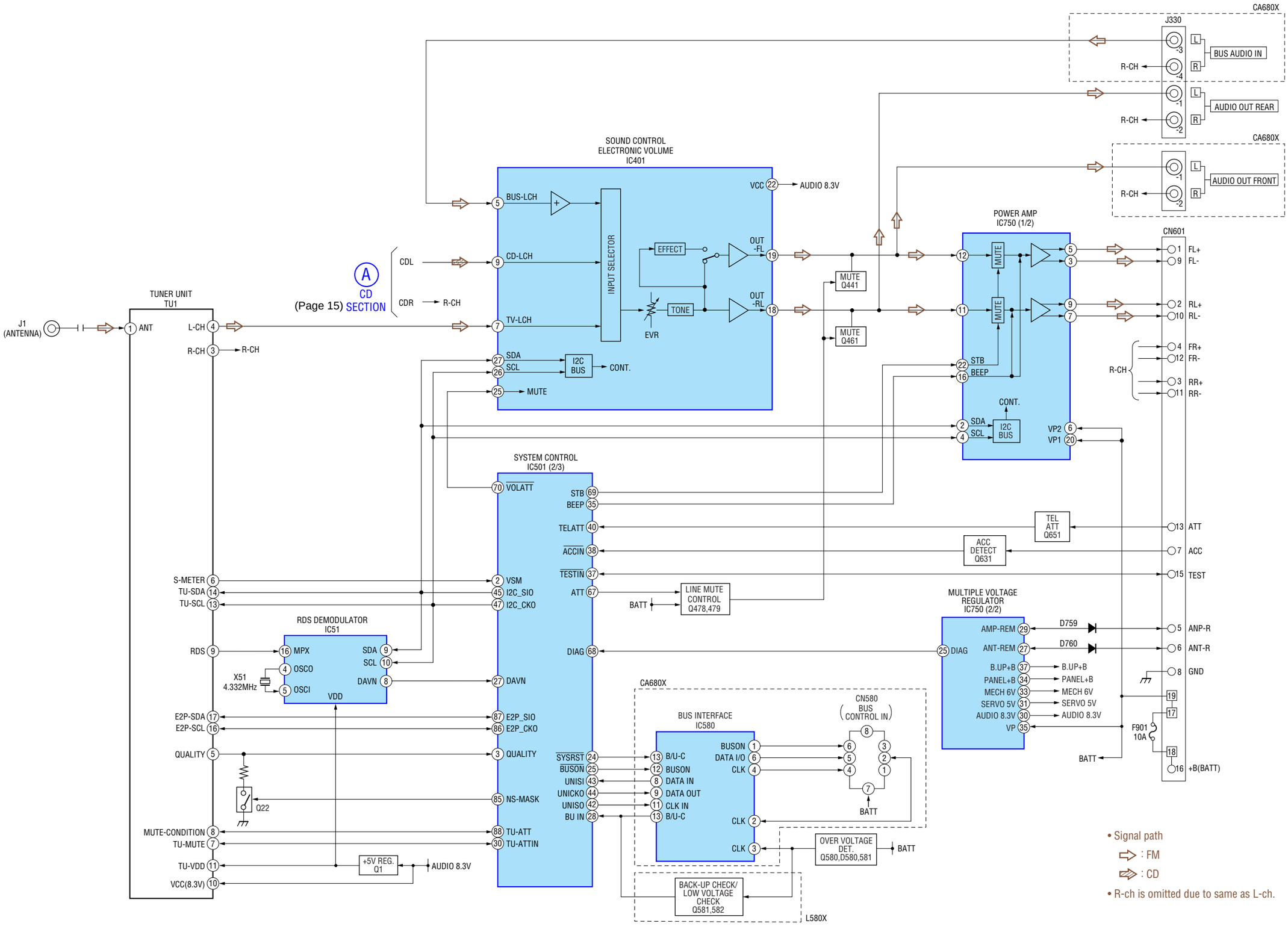
Pin No.	Pin Name	I/O	Pin Description
1	VREF–	—	A/D converter power supply (–) pin
2	VSM	I	S-meter voltage detection input
3	QUALITY	I	Noise detection input
4, 5	KEYIN1, 0	I	Key input 1, 0
6	RCIN0	I	Rotary commander key input
7 – 9	NIL	I	Not used. (Fixed at L in this set)
10	VREF+	—	A/D converter power supply (+) pin (+5 V)
11	VDD	—	Power supply pin (+5 V)
12	OSCOUT	O	Main clock output (18.432 MHz)
13	OSCIN	I	Main clock input (18.432 MHz)
14	VSS	—	Ground
15	XIN	I	Sub clock input (32.768 kHz)
16	XOUT	O	Sub clock output (32.768 kHz)
17	MMOD	I	Not used. (Fixed at L in this set)
18	LCDSO	O	Serial data output for LCD driver IC.
19	LCDCE	O	Chip enable output for LCD driver IC.
20	LCDCKO	O	Serial clock output for LCD driver IC.
21	CD_TSO	O	Serial data output for CD servo IC.
22	CD_TSI	I	Serial data input from CD servo IC.
23	CD_TCKO	O	Serial clock output for CD servo IC.
24	$\overline{\text{SYSRST}}$	O	System reset output (Used for CDX-CA680X only)
25	$\overline{\text{BUSON}}$	O	BUS ON output (Used for CDX-CA680X only)
26	KEYACK	I	Key acknowledge detection input
27	DAVN	I	RDS data block synchronization detection input
28	BUIN	I	Backup power supply input
29	SIRCS	I	SIRCS input
30	TU_ATTIN	I	Tuner attenuator control input
31	CD_PACK	I	CD text pack synchronization signal input from CD servo IC.
32	NC (VCC)	—	Power supply pin (+5 V)
33	$\overline{\text{RESET}}$	I	Microcomputer reset input
34	NOSE-SW	I	Front panel attachment detection input
35	BEEP	O	Beep output
36	NC	O	Not used. (Open)
37	$\overline{\text{TESTIN}}$	I	Test mode detection input
38	$\overline{\text{ACCIN}}$	I	Accessory power supply detection input
39	NC	O	Not used. (Open)
40	TELATT	I	Telephone attenuator detection input
41	NC (VCC)	I	Not used. (Fixed at H in this set)
42	UNISO	O	SONY-BUS data output (Used for CDX-CA680X only)
43	UNISI	I	SONY-BUS data input (Used for CDX-CA680X only)
44	UNICKO	O	SONY-BUS clock output (Used for CDX-CA680X only)
45	I2C_SIO	I/O	I^2C BUS serial data input/output
46	NC	O	Not used. (Open)
47	I2C_CKO	O	I^2C BUS serial clock output
48, 49	NC	O	Not used. (Open)
50	CD_SELFSW	I	CD mechanism deck Self switch detection input
51	TSTB	O	CD text parameter strobe output for CD servo IC.
52	RFOK	I	RFOK signal input from CD servo IC.
53	CD_RST	O	Reset signal output for CD servo IC.
54	A0	O	Command/parameter discrimination signal output for CD servo IC.
55	STB	O	Data strobe signal output for CD servo IC.

Pin No.	Pin Name	I/O	Pin Description
56	X_EN	O	Not used. (Open)
57	LIMIT	I	CD mechanism deck Limit switch detection input
58	NCO	O	Not used. (Open)
59	D_SW	I	CD mechanism deck Down switch detection input
60	INSW	I	CD mechanism deck Disc in switch detection input
61	NC	O	Not used. (Open)
62	CD_LM_LO	O	CD mechanism deck loading motor control output (Loading direction)
63	CD_LM_EJ	O	CD mechanism deck loading motor control output (Eject direction)
64 – 66	NC	O	Not used. (Open)
67	ATT	O	System attenuator control output
68	DIAG	I	Mode input from power amp IC.
69	STB	O	Standby control output for power amp IC.
70	$\overline{\text{VOLATT}}$	O	Electronic volume attenuator control output
71 – 74	NC	O	Not used. (Open)
75	DOOR-IND	O	Sub panel power supply control output
76 – 84	NC	O	Not used. (Open)
85	NS_MASK	O	Noise mask output
86	E2P_CKO	O	EEPROM serial clock output
87	E2P_SIO	I/O	EEPROM serial data input/output
88	TU-ATT	O	Tuner attenuator control output
89, 90	NC	O	Not used. (Open)
91	$\overline{\text{AD\_ON}}$	O	Key power supply control output
92, 93	NC	O	Not used. (Open)
94	$\overline{\text{PANEL\_SW}}$	I	Not used. (Fixed at L in this set)
95	DAVSS	—	D/A converter power supply (–) pin
96	COLSW	I	Key illumination 1 color/2 color select initial setting input (Fixed at L in this set)
97	FLASH_W	I	Flash microcomputer write detection input
98	RCIN1	I	Rotary commander SHIFT key input
99	NC	O	Not used. (Open)
100	DAVDD	—	D/A converter power supply (+) pin (+5 V)

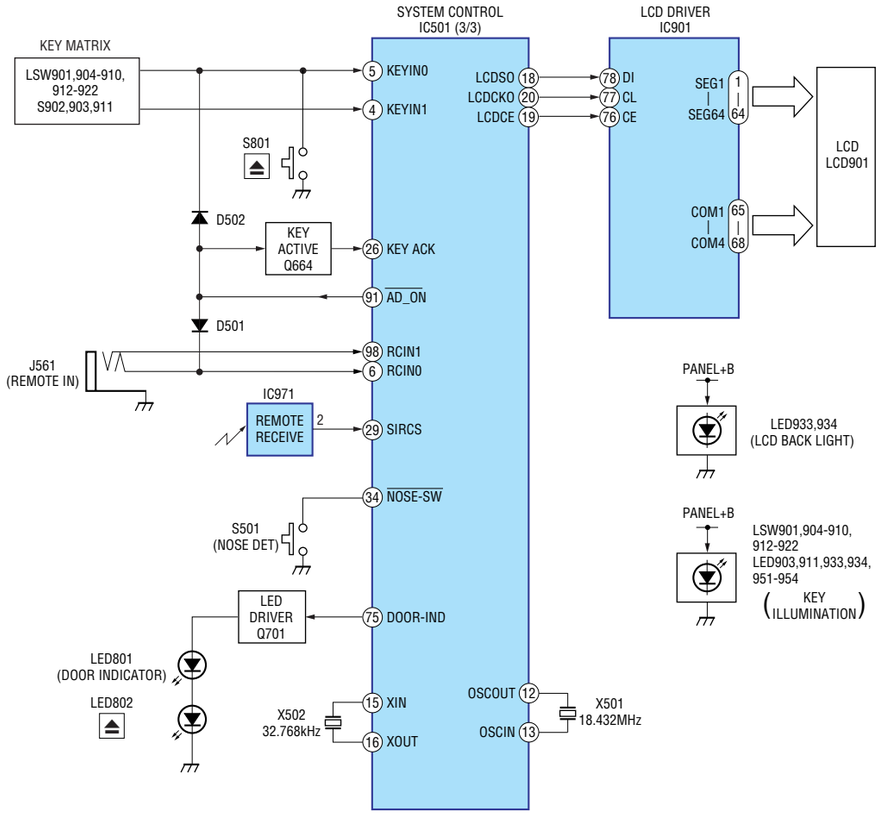
3-2. BLOCK DIAGRAM — CD SECTION —



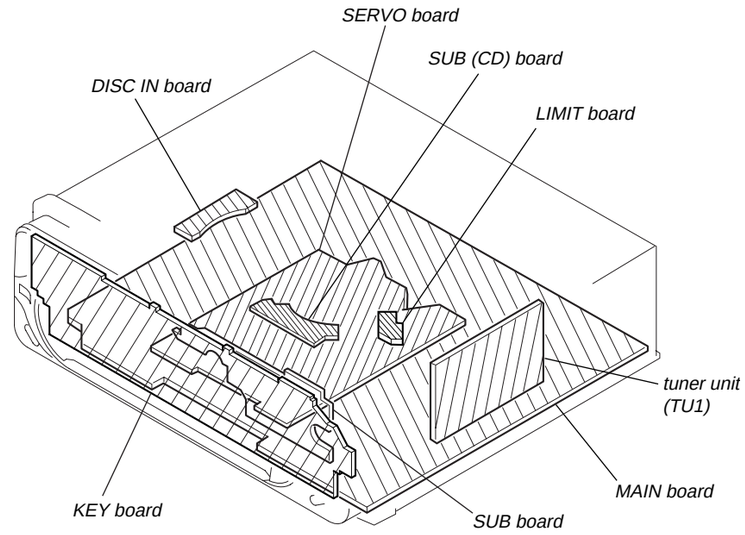
3-3. BLOCK DIAGRAM — TUNER SECTION —



3-4. BLOCK DIAGRAM — DISPLAY SECTION —



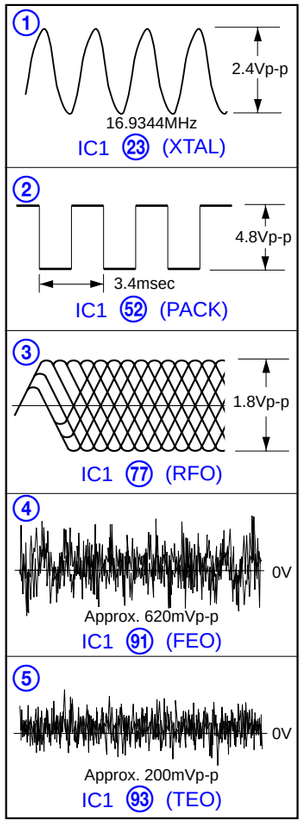
3-5. CIRCUIT BOARDS LOCATION



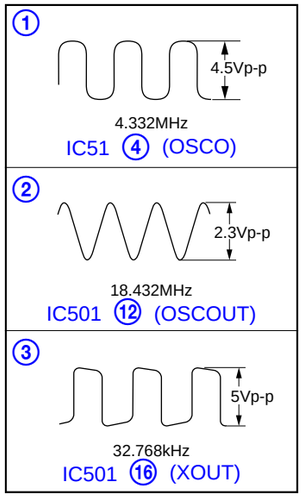
• Waveforms

— Servo Board —

(MODE: CD PLAY)



— Main Board —



3-6. PRINTED WIRING BOARDS — CD MECHANISM SECTION — • Refer to page 17 for Circuit Boards Location. : Uses unleaded solder.

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS. (In addition to this, the necessary note is printed in each block.)

for schematic diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- ▭ : panel designation.

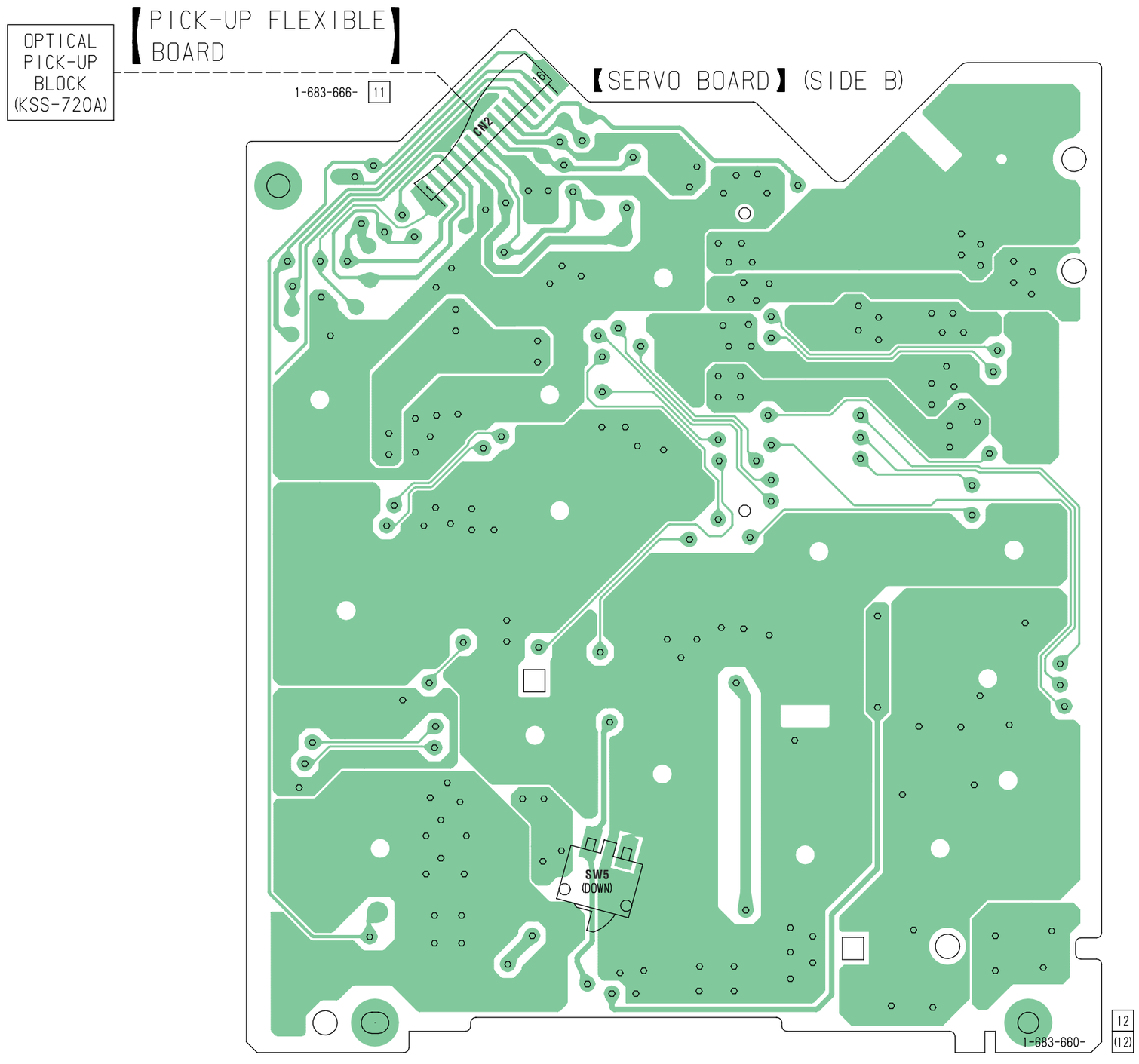
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- ▬ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - ⇨ : FM
  - ➡ : MW
  - ⇨ : CD

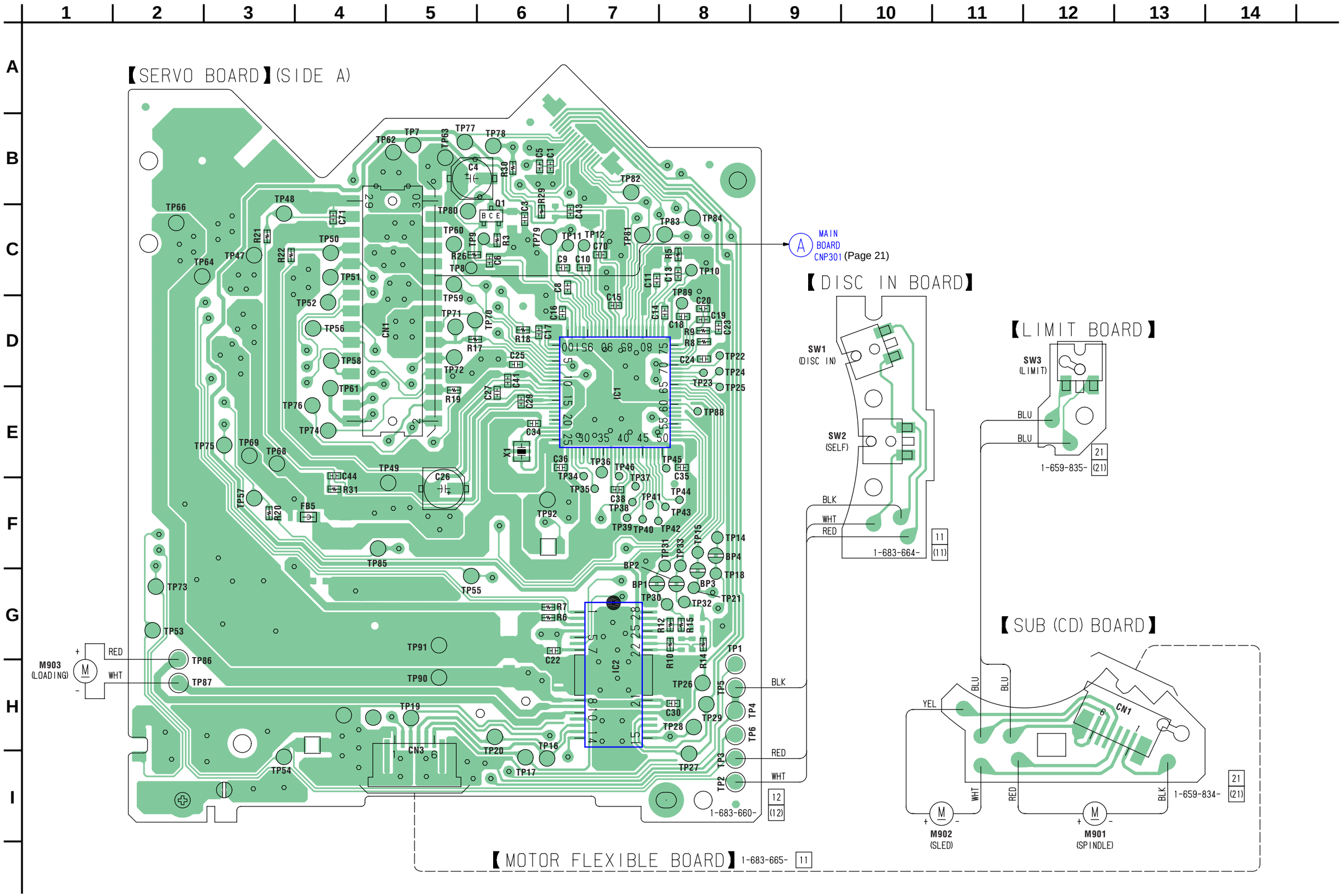
for printed wiring boards:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

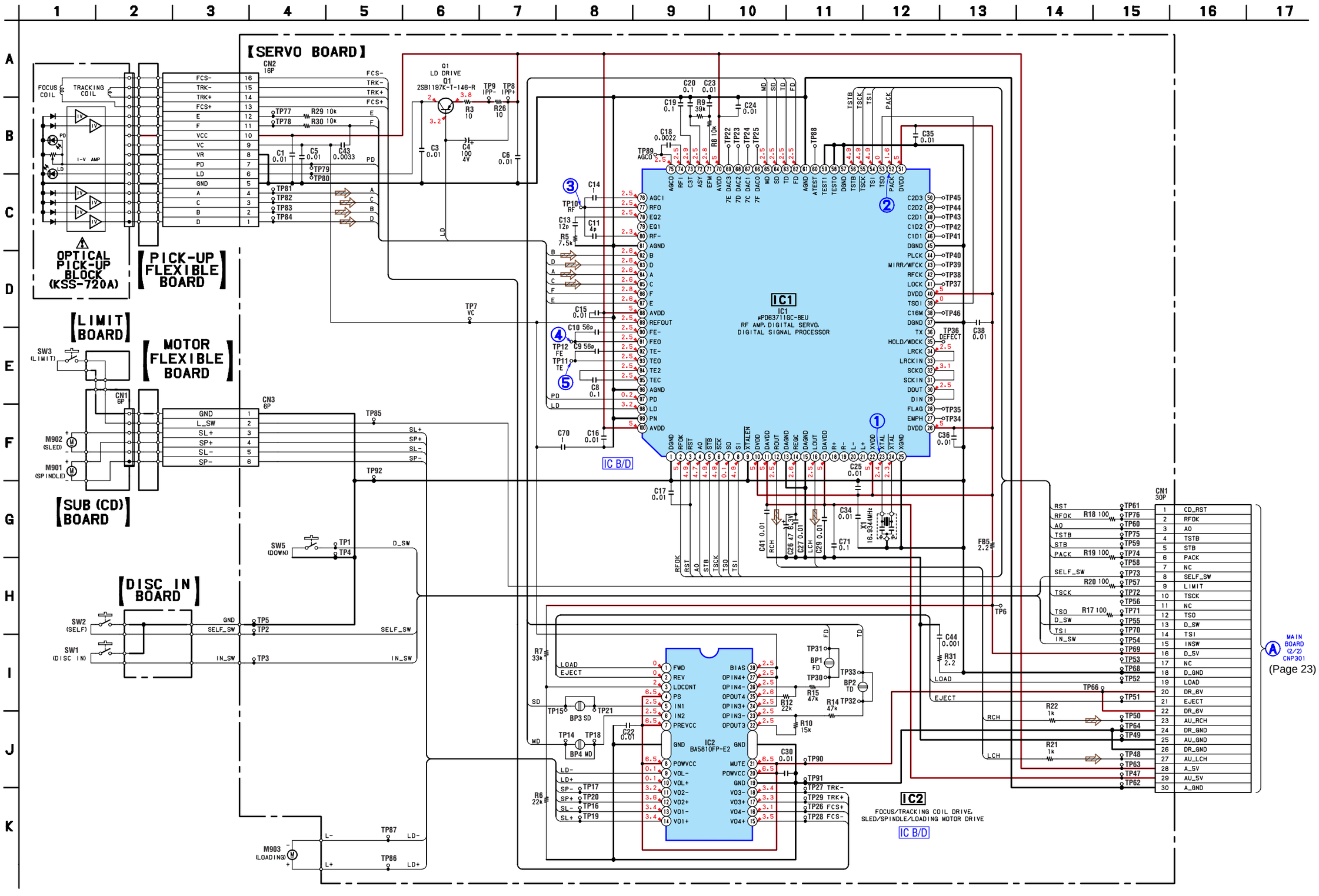
Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.



: Uses unleaded solder.

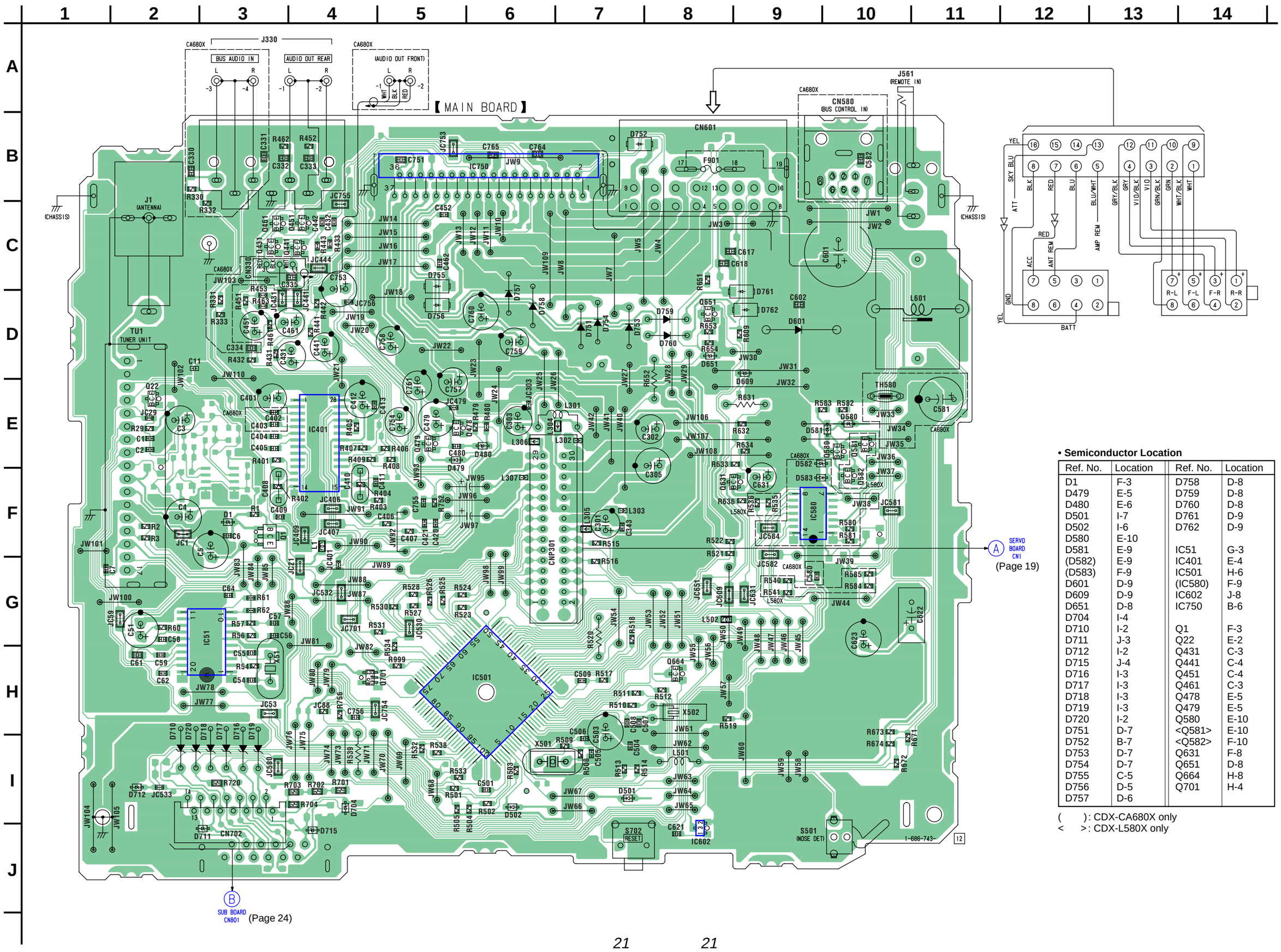


3-7. SCHEMATIC DIAGRAM — CD MECHANISM SECTION — • Refer to page 17 for Waveforms and page 18 for Common Note on Schematic Diagram.
• Refer to page 27 for IC Block Diagrams.



Note:
- Voltage is dc with respect to ground under no-signal conditions.
  no mark : CD PLAY

3-8. PRINTED WIRING BOARD — MAIN SECTION — • Refer to page 17 for Circuit Boards Location and page 18 for Common Note on Printed Wiring Boards. : Uses unleaded solder.



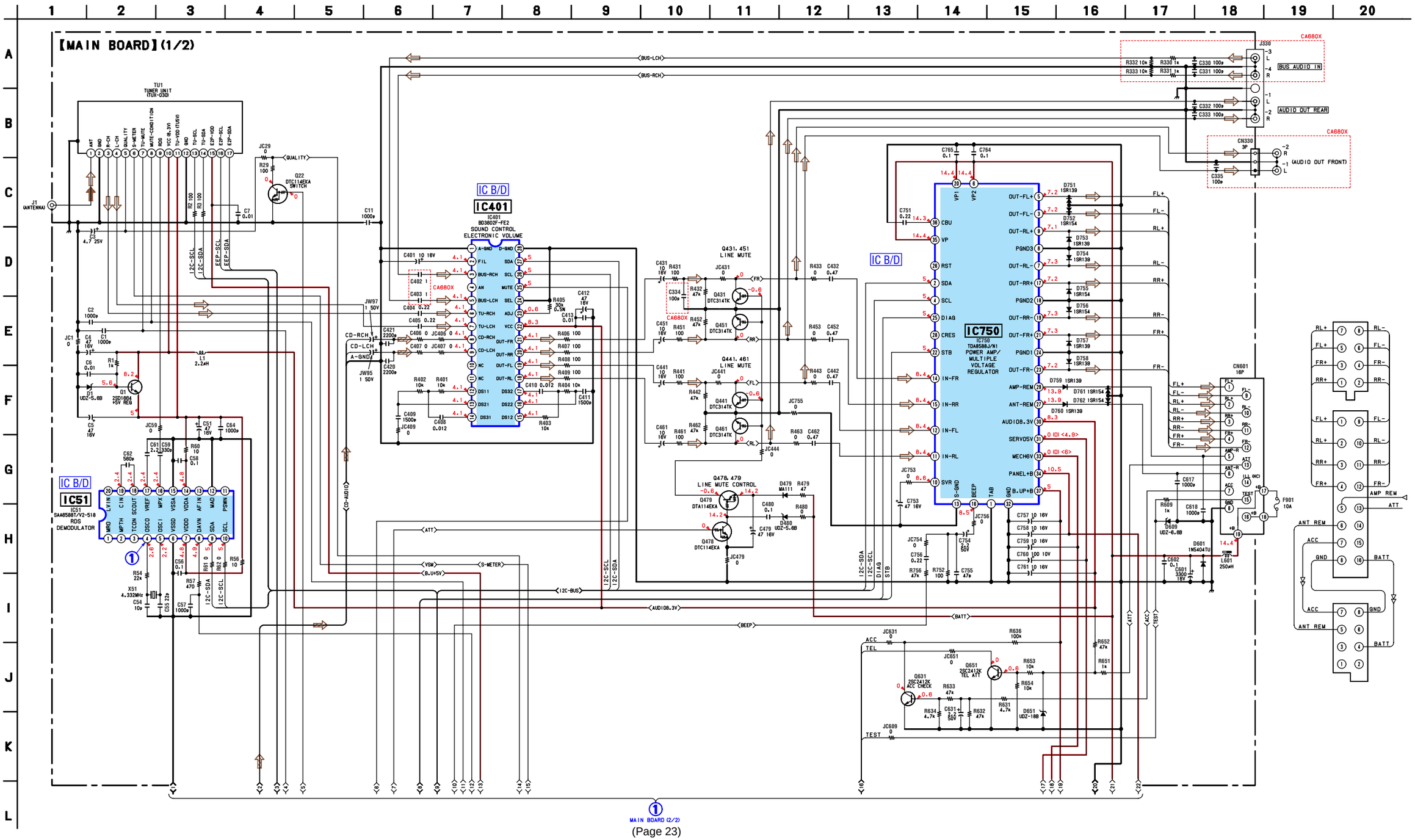
• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D1	F-3	D758	D-8
D479	E-5	D759	D-8
D480	E-6	D760	D-8
D501	I-7	D761	D-9
D502	I-6	D762	D-9
D580	E-10		
D581	E-9	IC51	G-3
(D582)	E-9	IC401	E-4
(D583)	F-9	IC501	H-6
D601	D-9	(IC580)	F-9
D609	D-9	IC602	J-8
D651	D-8	IC750	B-6
D704	I-4		
D710	I-2	Q1	F-3
D711	J-3	Q22	E-2
D712	I-2	Q431	C-3
D715	J-4	Q441	C-4
D716	I-3	Q451	C-4
D717	I-3	Q461	C-3
D718	I-3	Q478	E-5
D719	I-3	Q479	E-5
D720	I-2	Q580	E-10
D751	D-7	<Q581>	E-10
D752	B-7	<Q582>	F-10
D753	D-7	Q631	F-8
D754	D-7	Q651	D-8
D755	C-5	Q664	H-8
D756	D-5	Q701	H-4
D757	D-6		

( ) : CDX-CA680X only
< > : CDX-L580X only

3-9. SCHEMATIC DIAGRAM — MAIN SECTION (1/2) —

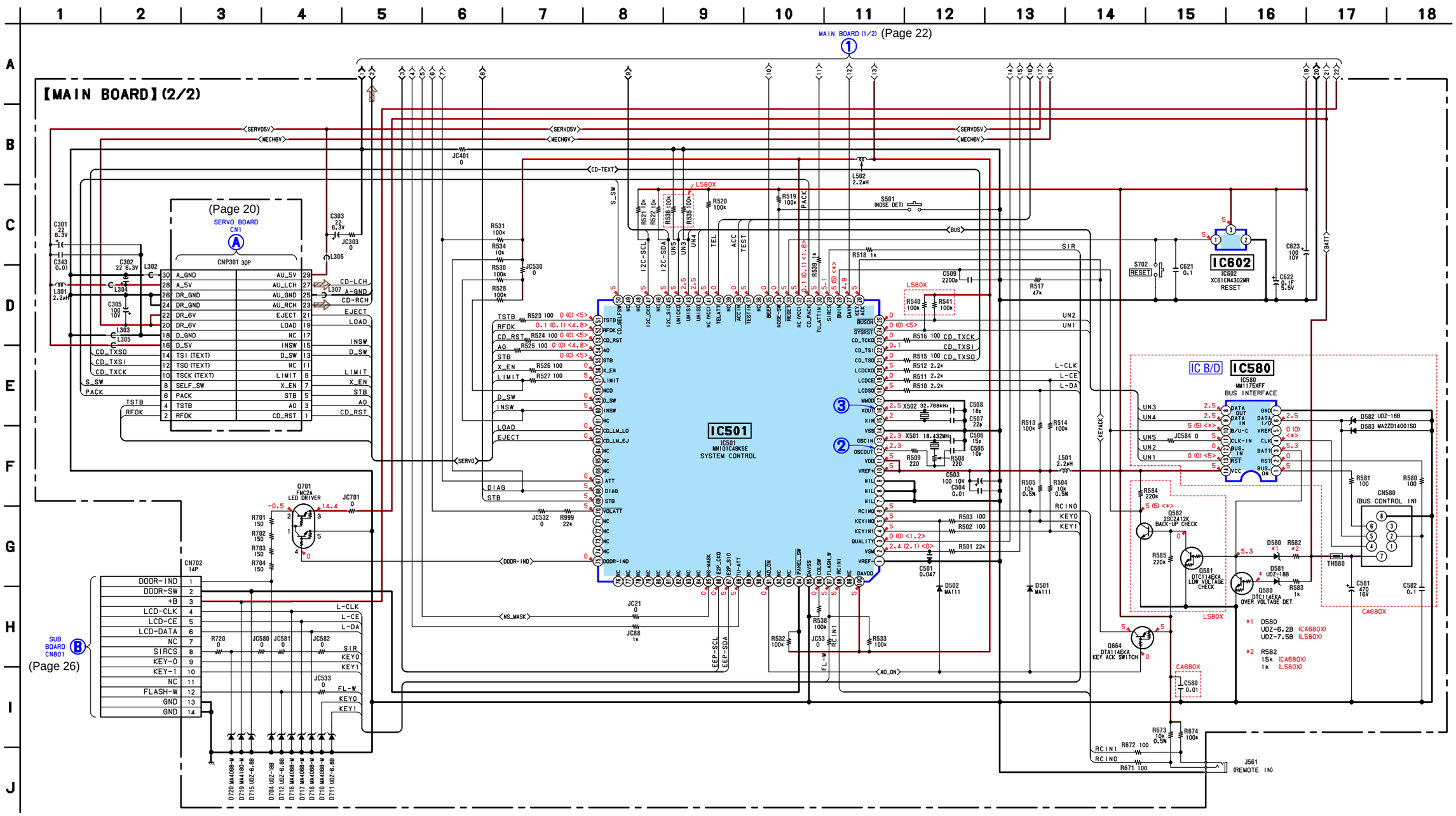
• Refer to page 17 for Waveforms and page 18 for Common Note on Schematic Diagram.
• Refer to page 27 for IC Block Diagrams.



Note:

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : MW
  < > : CD PLAY
  * : Impossible to measure

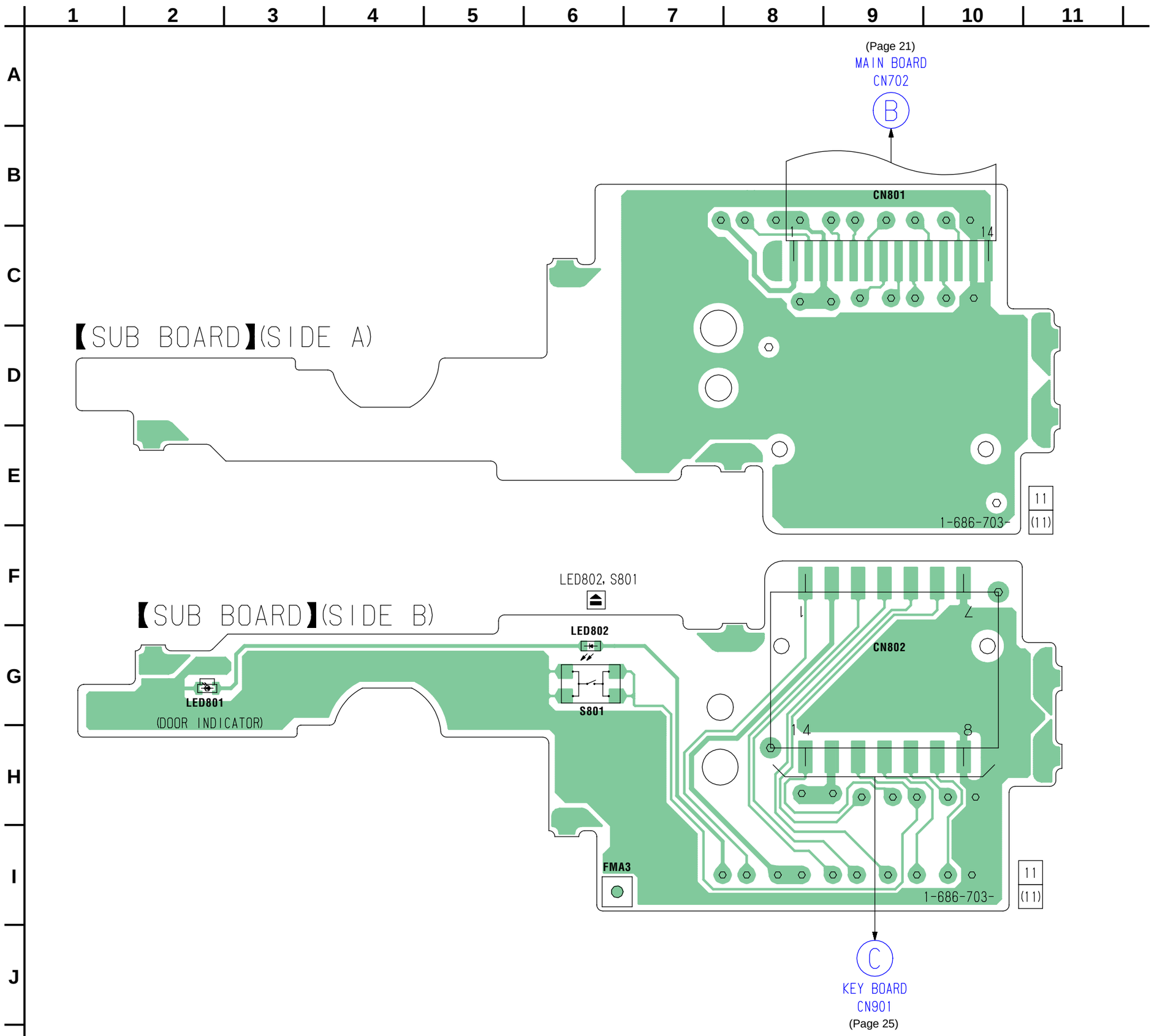
3-10. SCHEMATIC DIAGRAM — MAIN SECTION (2/2) — • Refer to page 18 for Common Note on Schematic Diagram and page 27 for IC Block Diagrams.



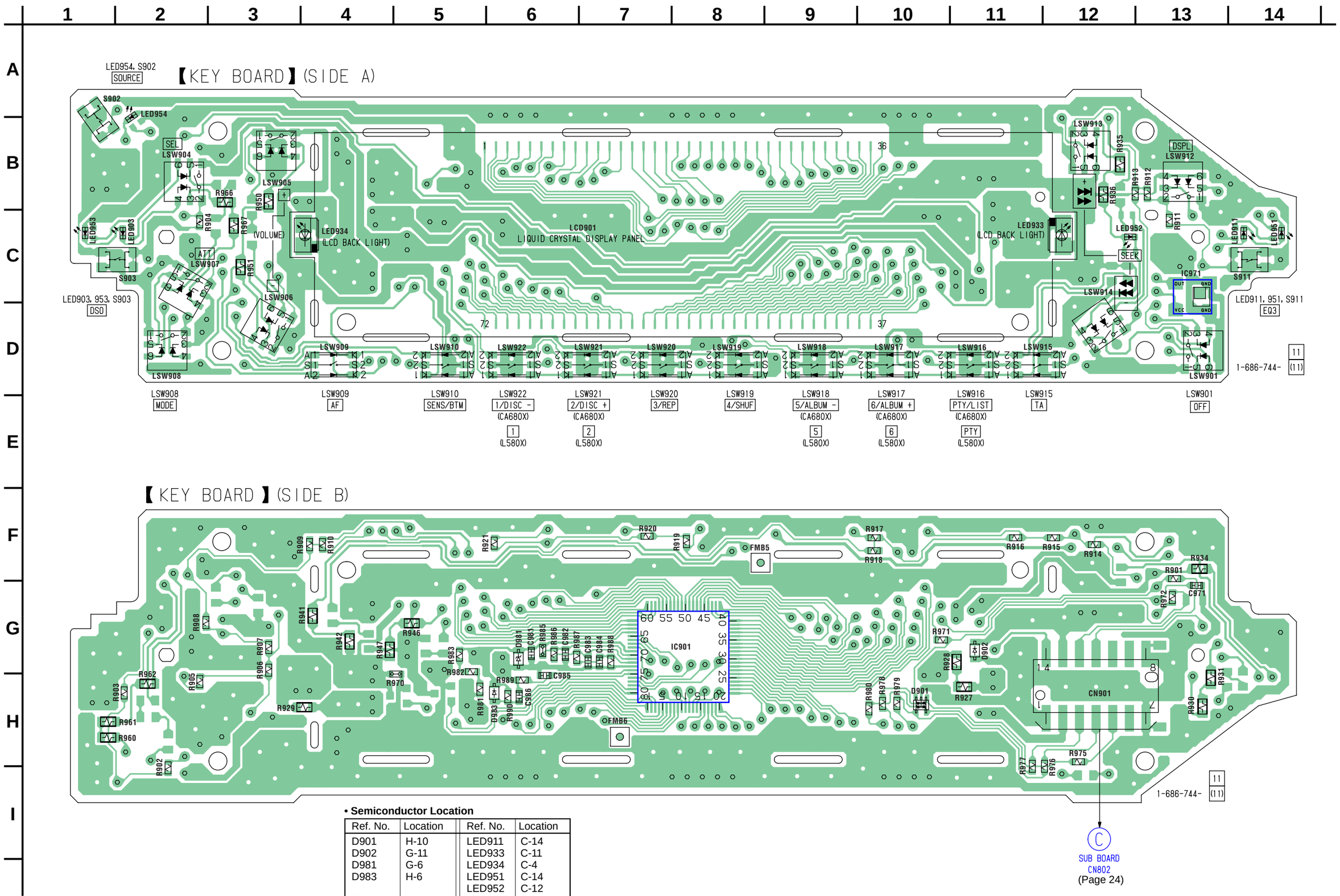
Note:

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : MW
  < > : CD PLAY
  * : Impossible to measure

3-11. PRINTED WIRING BOARD — RELAY SECTION — • Refer to page 17 for Circuit Boards Location and page 18 for Common Note on Printed Wiring Boards. : Uses unleaded solder.



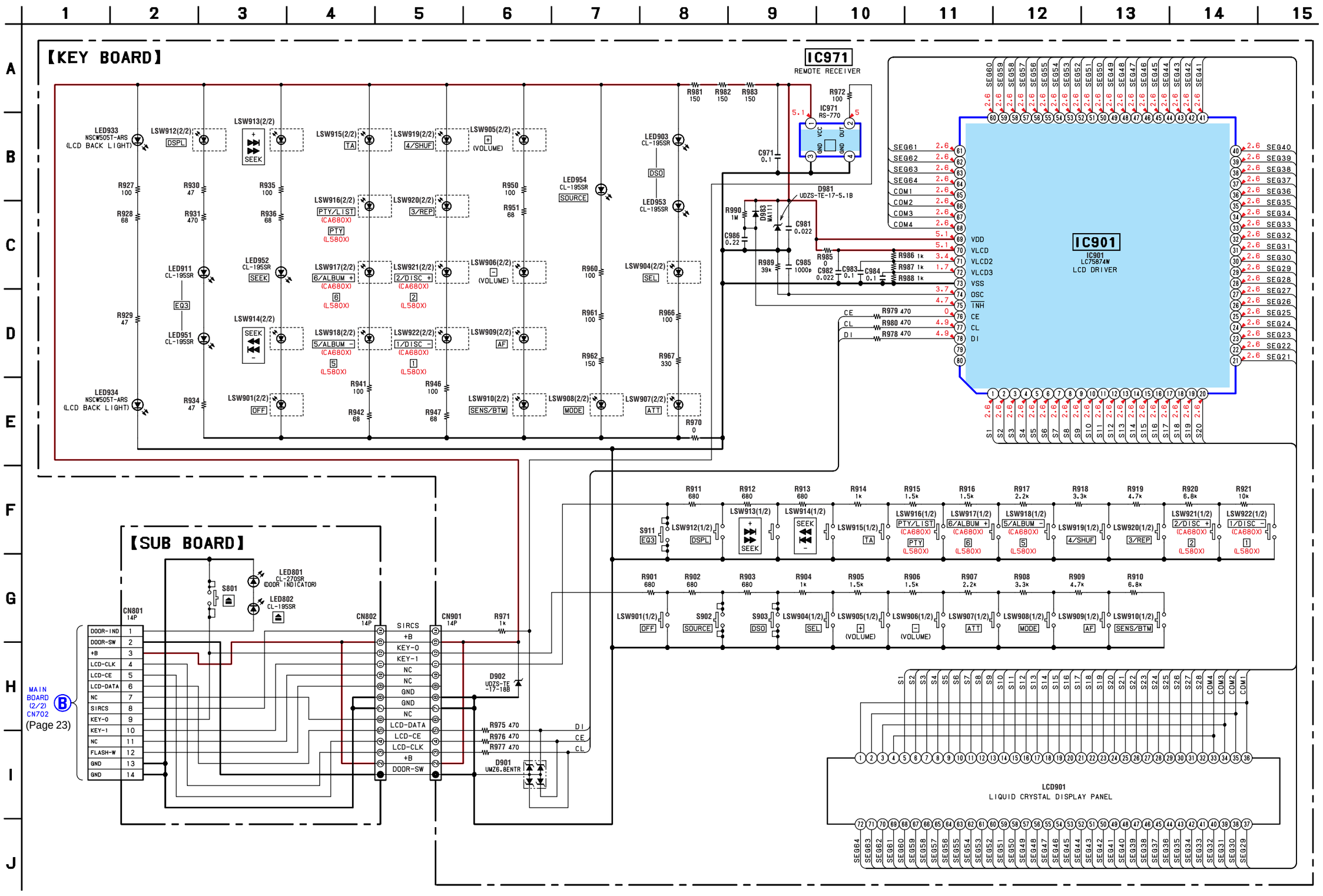
3-12. PRINTED WIRING BOARD — KEY SECTION — **• Refer to page 17 for Circuit Boards Location and page 18 for Common Note on Printed Wiring Boards.** **: Uses unleaded solder.**



• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D901	H-10	LED911	C-14
D902	G-11	LED933	C-11
D981	G-6	LED934	C-4
D983	H-6	LED951	C-14
		LED952	C-12
IC901	G-8	LED953	C-1
IC971	C-13	LED954	A-2
LED903	C-2		

3-13. SCHEMATIC DIAGRAM — KEY SECTION — • Refer to page 18 for Common Note on Schematic Diagram.

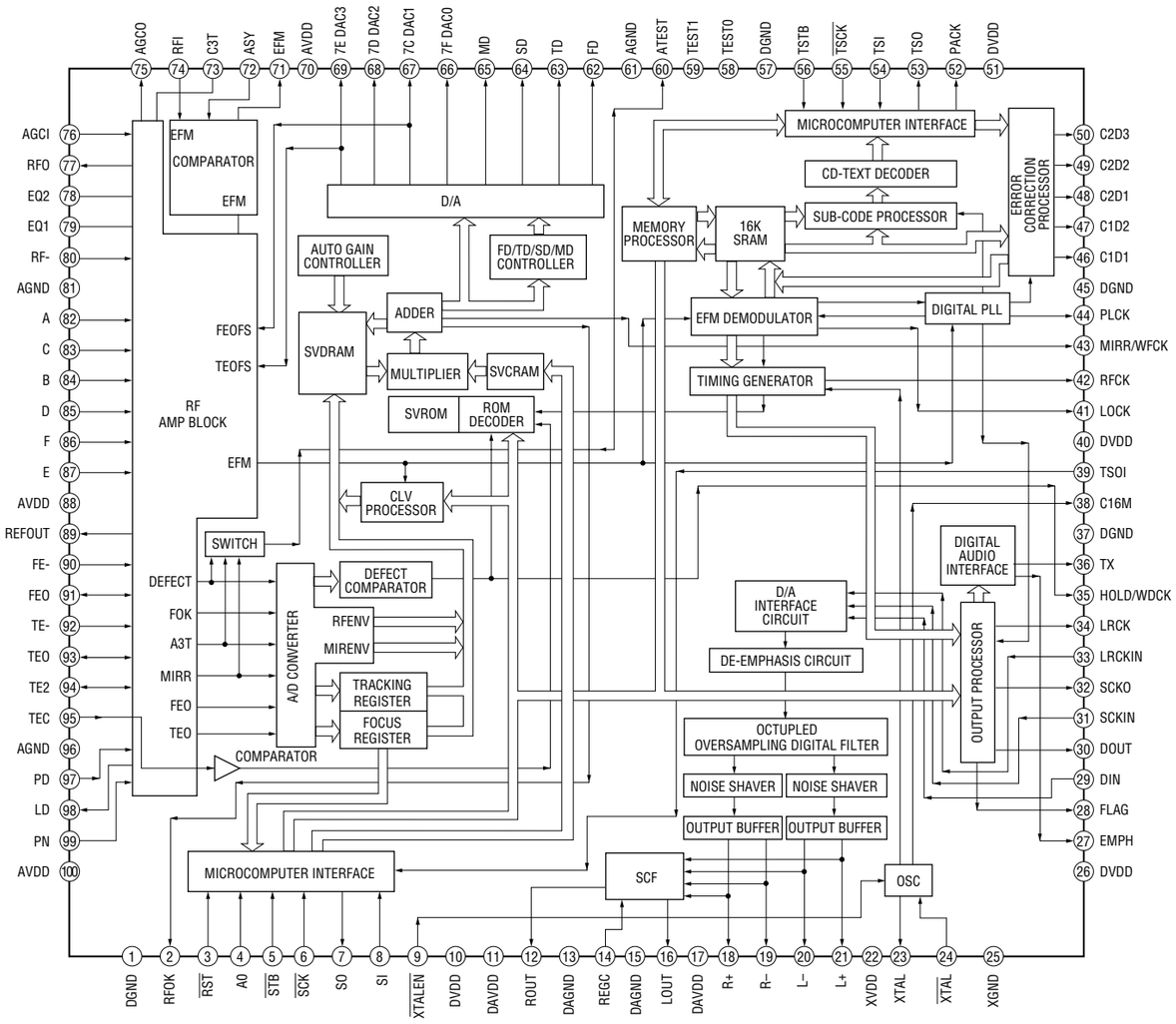


Note:

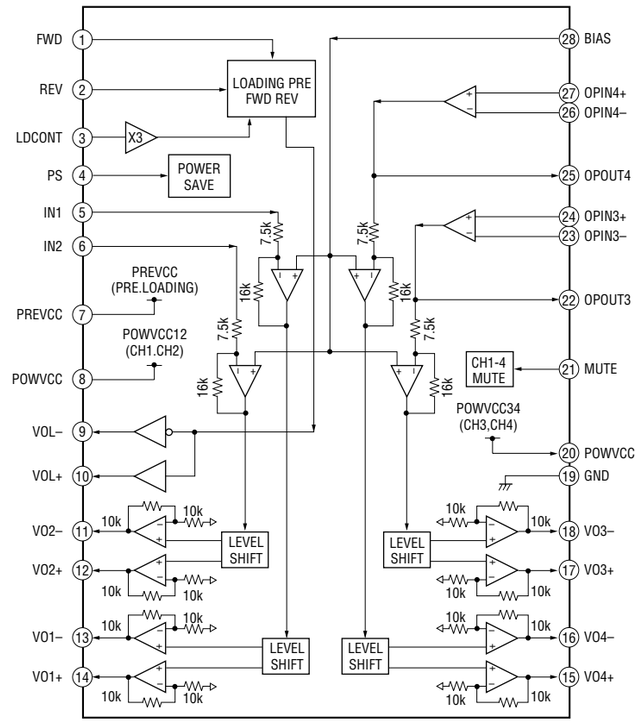
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

3-14. IC BLOCK DIAGRAMS

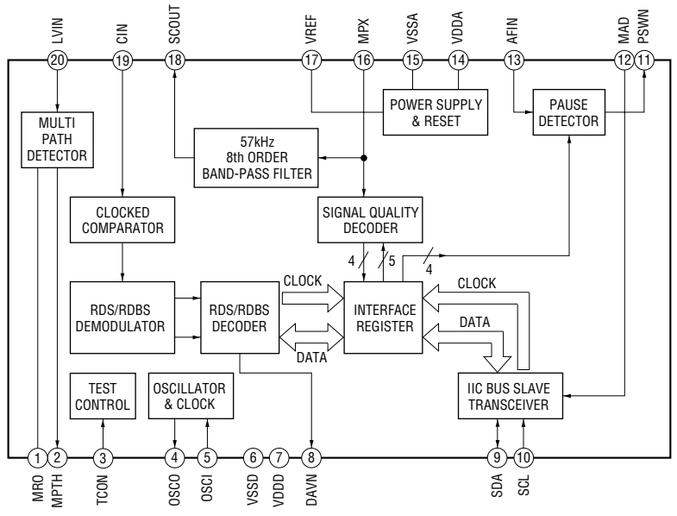
IC1 µPD63711GC-8EU



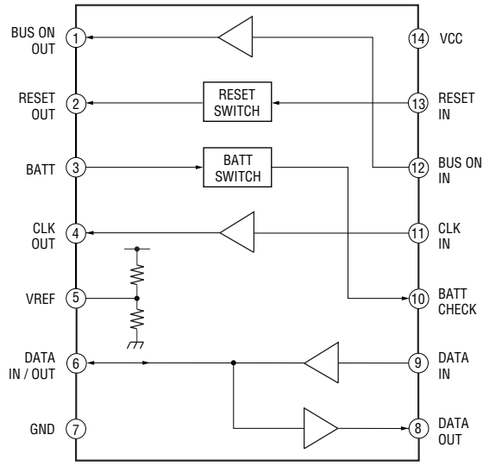
IC2 BA5810FP-E2



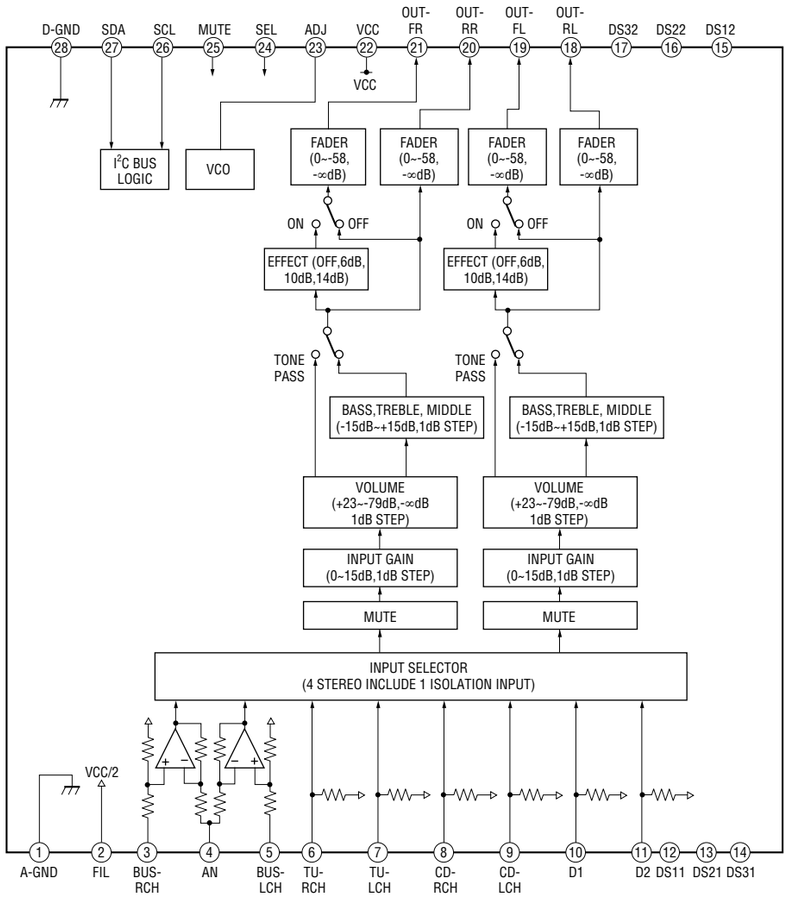
IC51 SAA6588T/V2-518



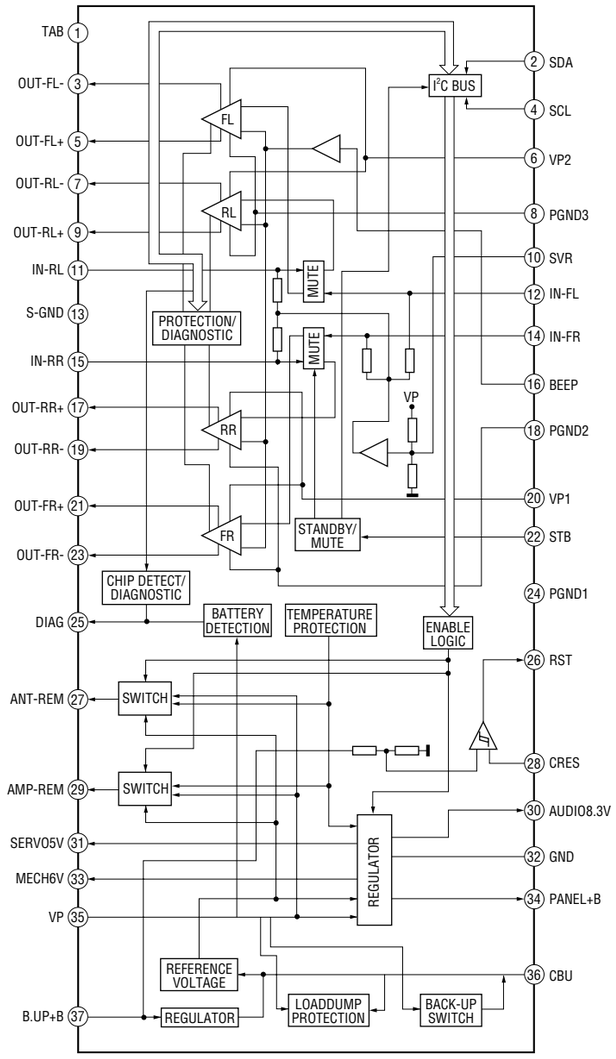
IC580 MM1175XFF (CDX-CA680X only)



IC401 BD3802F-FE2



IC750 TDA8588J/N1

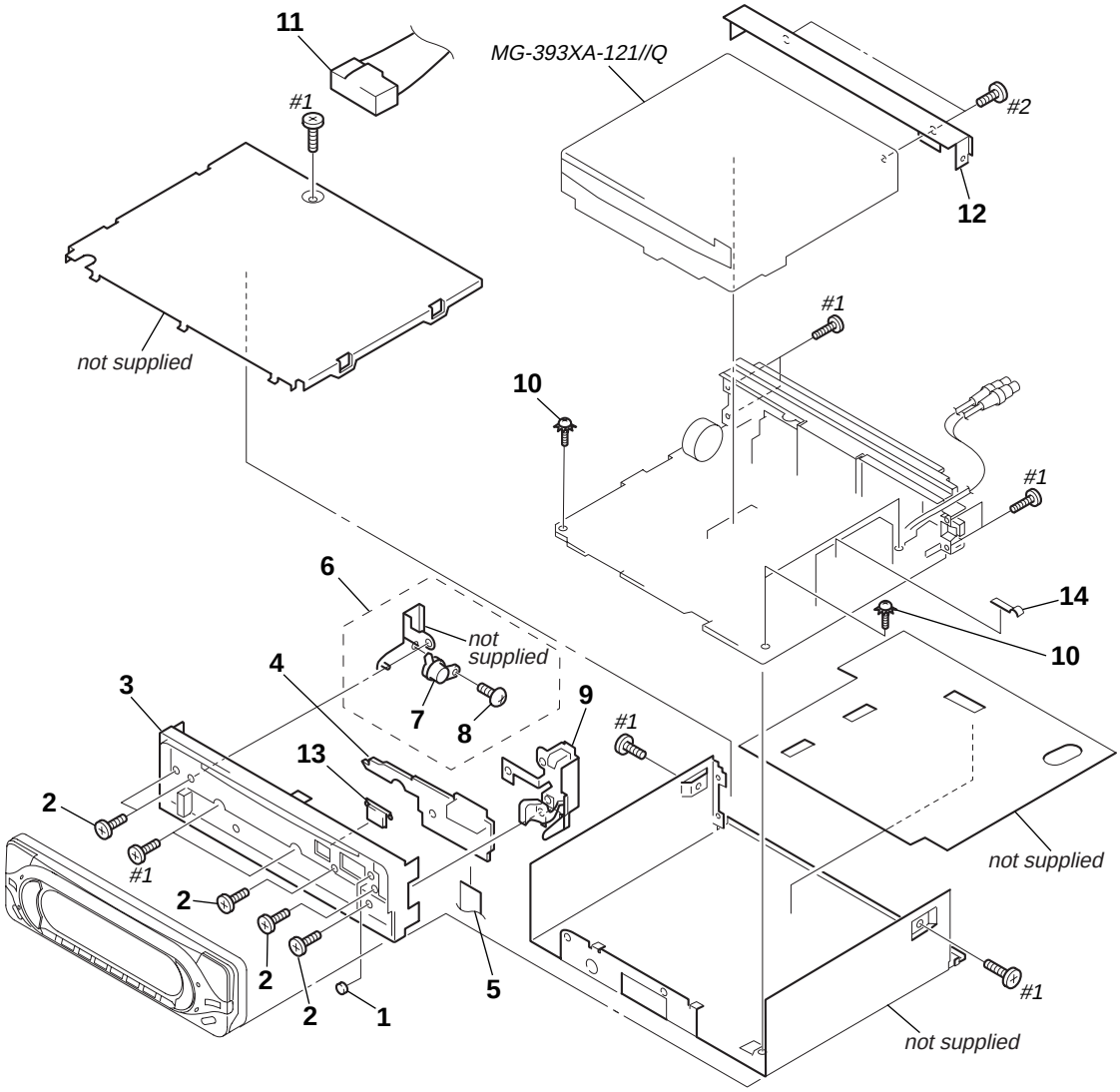


SECTION 4
EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  Parts Color Cabinet's Color
- Accessories are given in the last of this parts list.

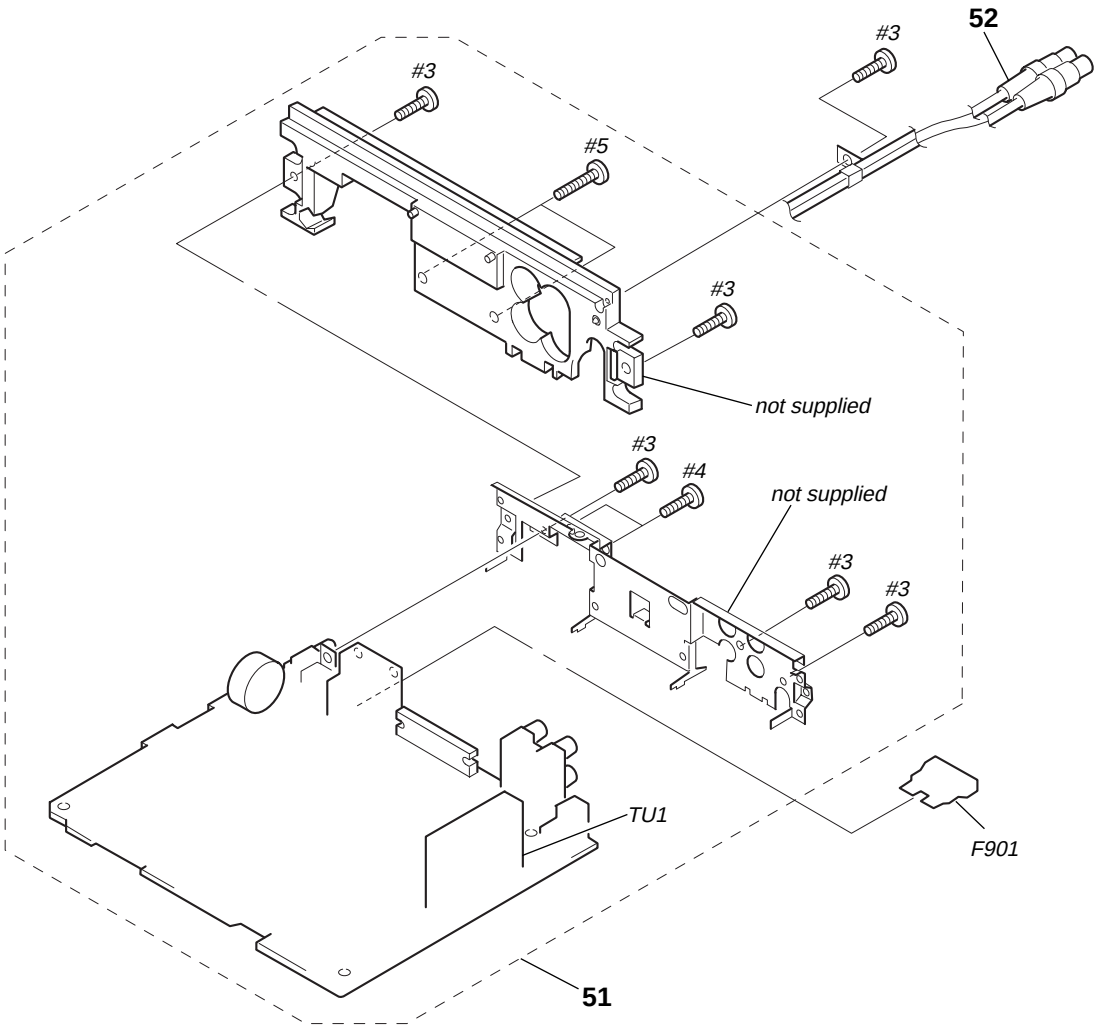
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

4-1. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
1	3-243-177-01	CUSHION (SUB PANEL)	
2	3-042-244-01	SCREW (T)	
3	X-3382-700-1	PANEL ASSY, SUB	
4	1-686-703-11	SUB BOARD	
5	1-792-195-11	CABLE, FLEXIBLE FLAT (14 CORE)	
6	X-3376-699-6	GEAR ASSY	
7	3-030-909-03	DAMPER, OIL	
8	3-713-786-51	SCREW +P 2X3	
9	X-3381-381-3	LOCK ASSY	
10	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
11	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER)	
12	3-246-450-01	BRACKET (CD)	
13	3-246-441-01	BUTTON (EJECT)	
14	3-246-481-01	PLATE (TU), GROUND	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-790-01	SCREW +PTT 2.6X4 (S)	

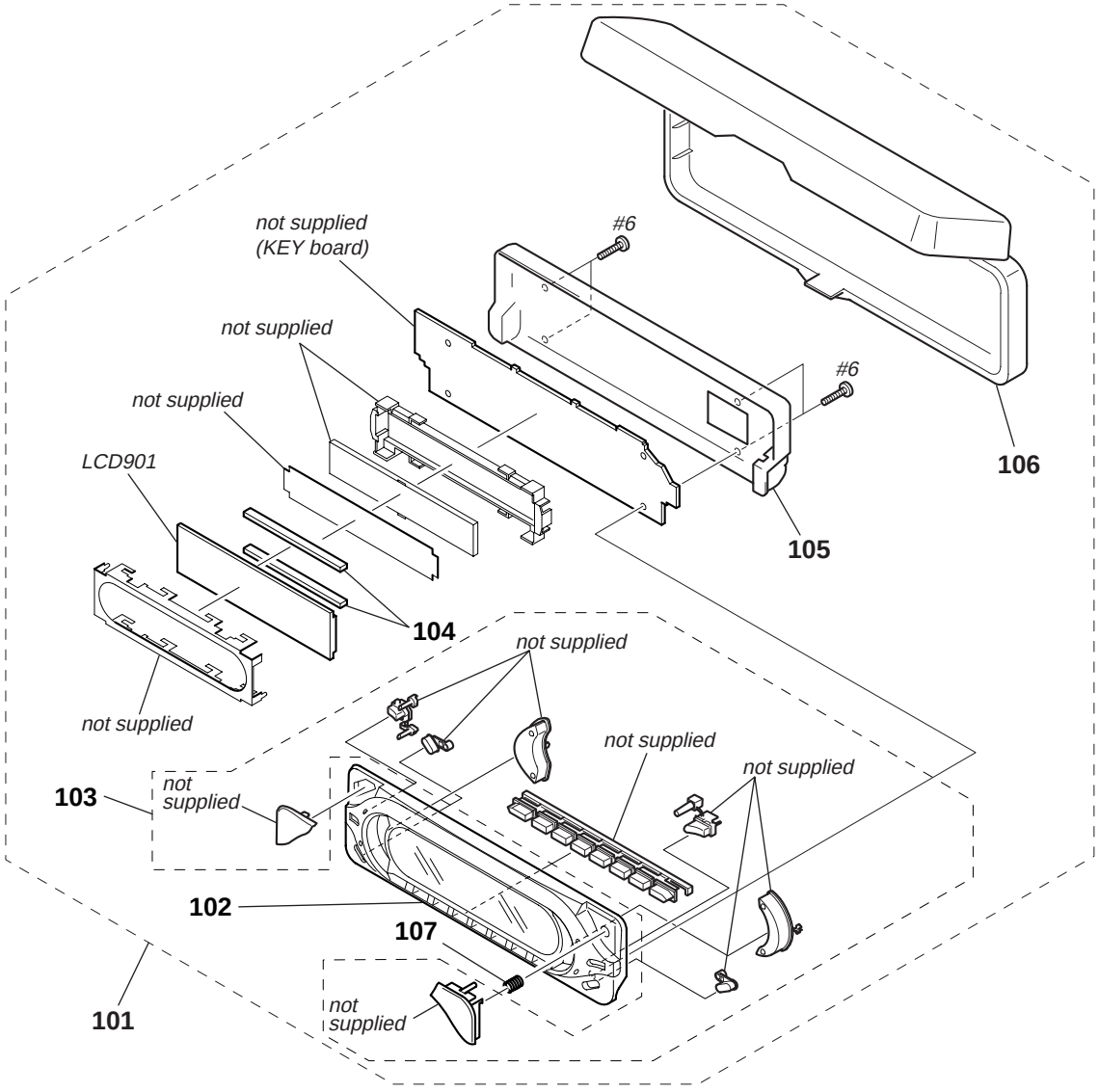
4-2. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark
51	A-3274-581-A	MAIN BOARD, COMPLETE (L580X)	
51	A-3274-585-A	MAIN BOARD, COMPLETE (CA680X)	
52	1-790-355-71	CORD (WITH CONNECTOR) (RCA) (AUDIO OUT FRONT) (CA680X)	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	

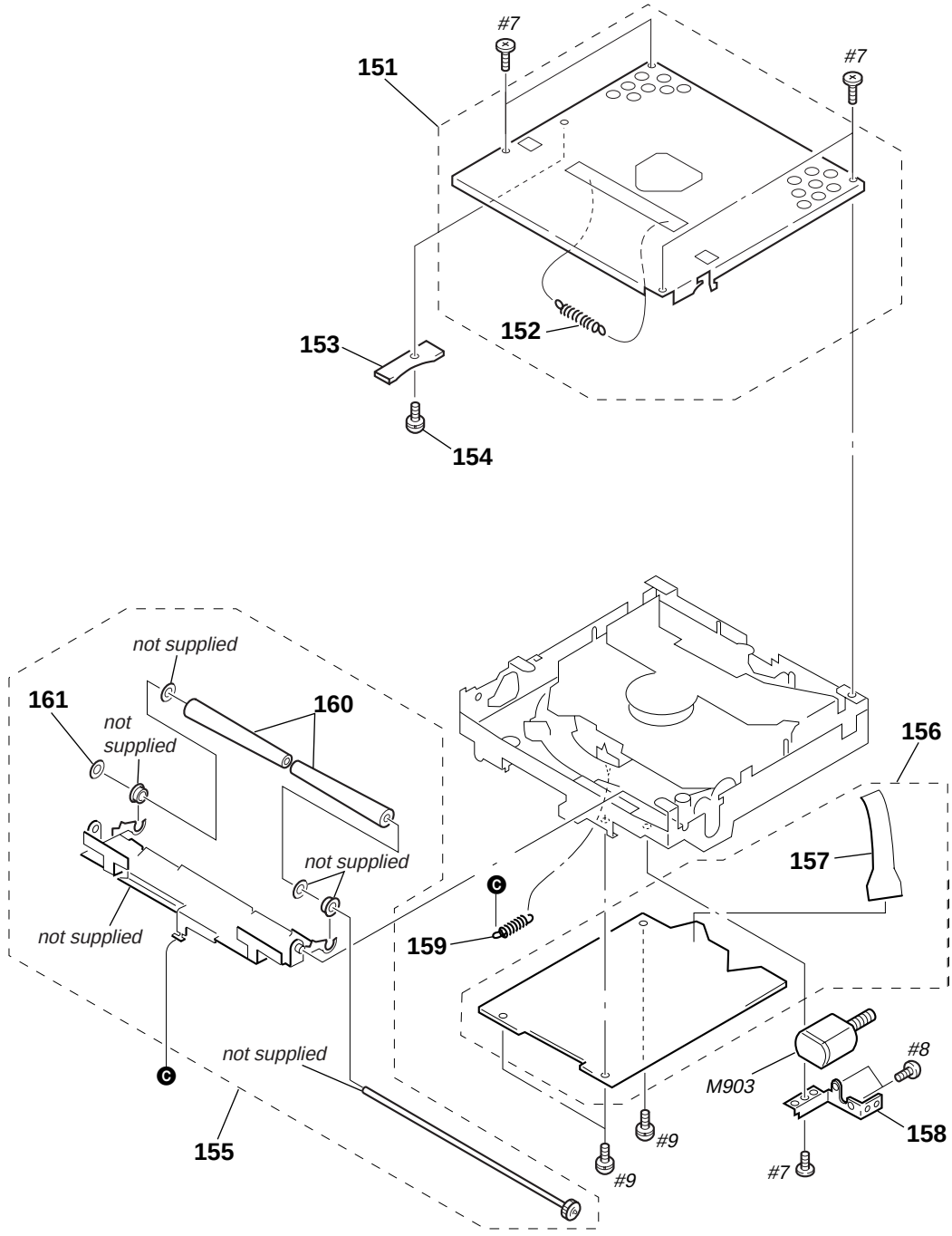
Ref. No.	Part No.	Description	Remark
TU1	A-3220-887-A	TUNER UNIT (TUX-030)	
#3	7-685-793-09	SCREW +PTT 2.6X8 (S)	
#4	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT	
#5	7-685-795-09	SCREW +PTT 2.6X12 (S)	

4-3. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
101	A-3315-881-A	PANEL COMPLETE ASSY, FRONT (L580X)	
101	A-3315-894-A	PANEL COMPLETE ASSY, FRONT (CA680X)	
102	X-3382-703-1	PANEL ASSY, FRONT (L580X)	
102	X-3382-744-1	PANEL ASSY, FRONT (CA680X)	
103	X-3383-105-1	BUTTON ASSY (S)	
104	1-694-976-11	CONDUCTIVE BOARD, CONNECTION	
105	X-3382-702-1	PANEL ASSY, FRONT BACK	
106	X-3383-264-1	CASE (PANEL) ASSY (for FRONT PANEL)	
107	3-246-778-01	SPRING (OPEN)	
LCD901	1-805-076-11	DISPLAY PANEL, LIQUID CRYSTAL	
#6	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT	

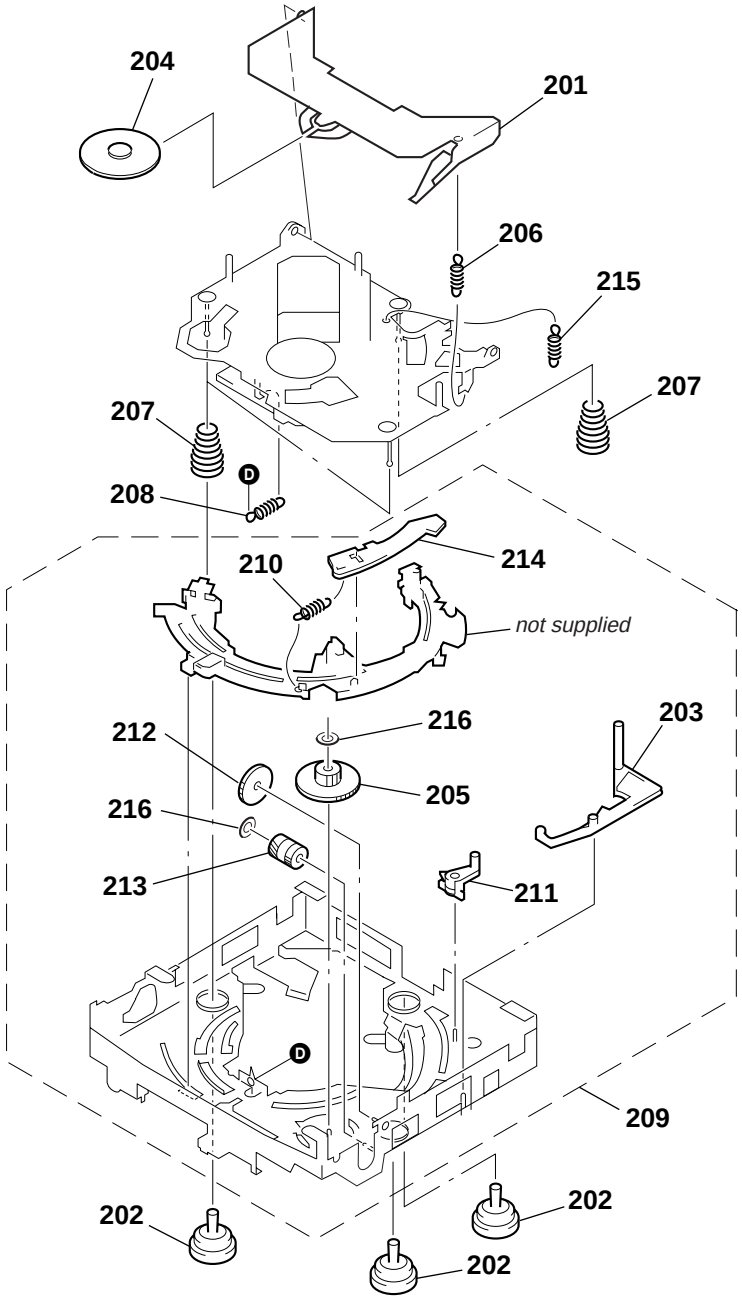
4-4. CD MECHANISM SECTION (1)
(MG-393XA-121//Q)



Ref. No.	Part No.	Description	Remark
151	A-3315-247-B	CHASSIS (T.U) ASSY	
152	3-931-909-01	SPRING (LR), TENSION	
153	1-683-664-11	DISC IN BOARD	
154	3-338-737-01	SCREW (2X3), +PS	
155	A-3315-040-A	ROLLER ASSY, ARM	
156	A-3283-270-A	SERVO BOARD, COMPLETE	
157	1-683-666-11	PICK-UP FLEXIBLE BOARD	
* 158	3-039-629-02	BRACKET (MOTOR)	

Ref. No.	Part No.	Description	Remark
159	3-225-784-01	SPRING (RA3), TENSION	
160	3-933-152-03	ROLLER (S)	
161	3-931-913-11	RING (ROLLER), RETAINING	
M903	A-3315-039-A	MOTOR SUB ASSY, LD (LOADING)	
#7	7-627-553-37	SCREW, PRECISION +P 2X3 TYPE3	
#8	7-627-553-17	SCREW, PRECISION +P 2X2 TYPE3	
#9	7-628-253-00	SCREW +PS 2X4	

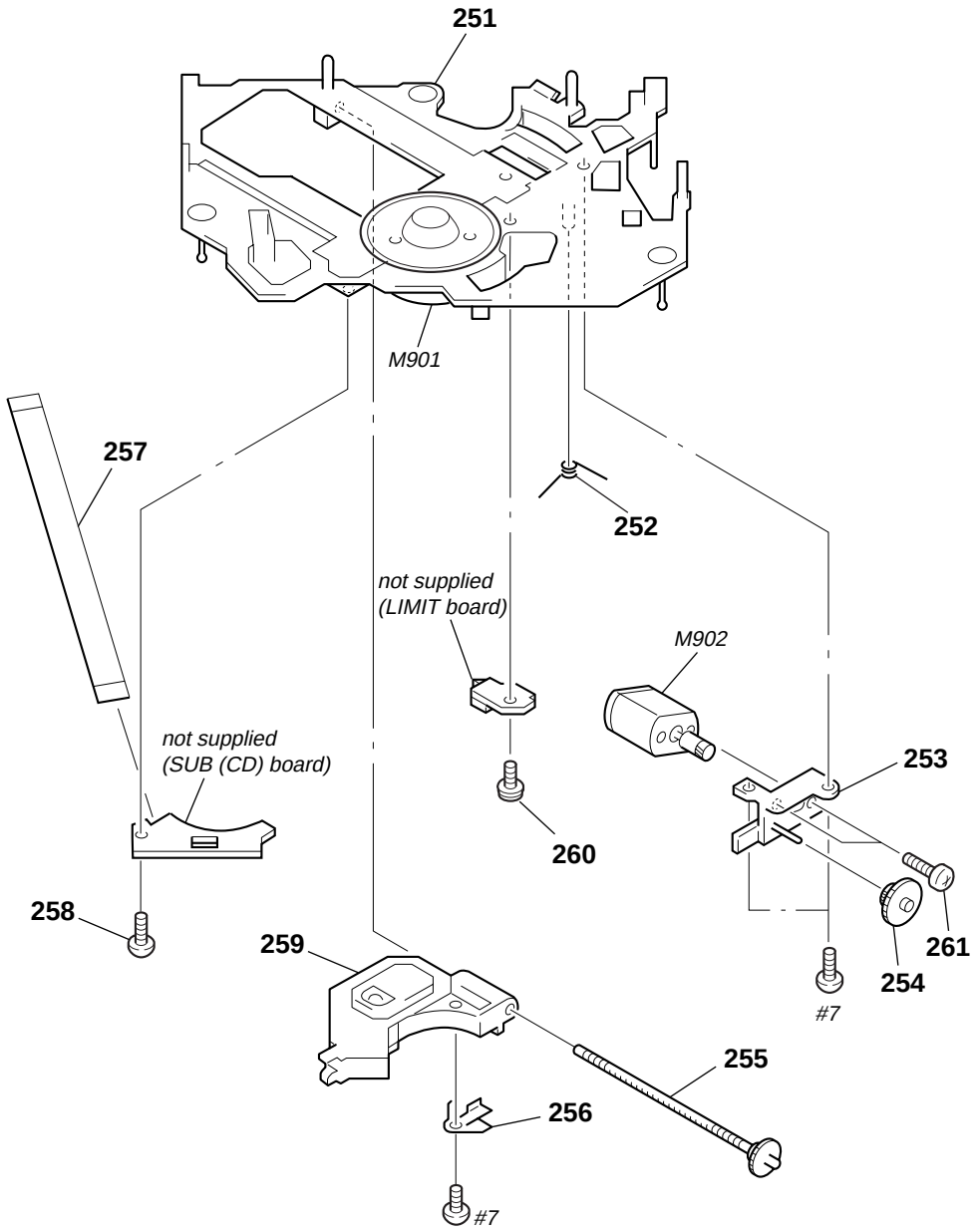
4-5. CD MECHANISM SECTION (2)
(MG-393XA-121//Q)



Ref. No.	Part No.	Description	Remark
201	X-3378-956-8	ARM ASSY, CHUCKING	
202	3-931-897-61	DAMPER (T)	
203	3-039-627-01	LEVER (D)	
204	3-040-165-02	RETAINER (DISC)	
205	3-014-727-01	WHEEL (LW), WORM	
206	3-931-895-01	SPRING (CH), TENSION	
207	3-931-898-01	SPRING (FL), COMPRESSION	
208	3-032-483-02	SPRING (KF1), TENSION	

Ref. No.	Part No.	Description	Remark
209	A-3315-243-D	CHASSIS (M) ASSY	
210	3-220-180-01	SPRING (TR2), TENSION	
211	3-931-881-03	LEVER (LOCK)	
212	3-931-882-02	GEAR (MDL)	
213	3-007-537-11	WHEEL (U), WORM	
214	3-007-536-05	LEVER (TR)	
215	3-032-484-01	SPRING (KR1), TENSION	
216	3-018-272-01	WASHER	

4-6. CD MECHANISM SECTION (3)
(MG-393XA-121//Q)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
251	X-3378-598-3	CHASSIS (OP) ASSY (including M901)	
252	3-043-494-01	SPRING (SL), TORSION	
253	3-040-170-01	BASE (DRIVING)	
254	3-040-419-01	GEAR (MIDWAY)	
255	A-3291-669-A	SHAFT (FEED) ASSY	
256	3-025-743-01	SPRING (FEED), LEAF	
257	1-683-665-11	MOTOR FLEXIBLE BOARD	
258	3-909-607-01	SCREW	
⚠259	8-820-103-11	OPTICAL PICK-UP KSS-720A/C-RP	
260	3-338-737-01	SCREW (2X3), +PS	
261	3-241-673-01	SCREW (SM), SPECIAL	
M902	A-3291-674-A	MOTOR ASSY, SLED (SLED)	
#7	7-627-553-37	SCREW, PRECISION +P 2X3 TYPE3	

SECTION 5
ELECTRICAL PARTS LIST

DISC IN | KEY

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	1-683-664-11	DISC IN BOARD			
		**********			
**********					
		KEY BOARD			
		**********			
	1-694-976-11	CONDUCTIVE BOARD, CONNECTION			
		< CAPACITOR >			
C971	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C981	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C982	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C983	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C984	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C985	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C986	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
		< CONNECTOR >			
CN901	1-817-158-21	PLUG, CONNECTOR 14P			
		< DIODE >			
D901	8-719-085-72	DIODE UMZ6.8ENTR			
D902	8-719-083-66	DIODE UDZS-TE-17-18B			
D981	8-719-069-54	DIODE UDZS-TE-17-5.1B			
D983	8-719-404-50	DIODE MA111-TX			
		< IC >			
IC901	8-759-826-21	IC LC75874W			
IC971	6-600-163-01	IC RS-770			
		< LIQUID CRYSTAL DISPLAY >			
LCD901	1-805-076-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< DIODE >			
LED903	6-500-450-01	LED CL-195SR-CD-T (DSO)			
LED911	6-500-450-01	LED CL-195SR-CD-T (EQ3)			
LED933	6-500-459-01	LED NSCW505T-ARS (LCD BACK LIGHT)			
LED934	6-500-459-01	LED NSCW505T-ARS (LCD BACK LIGHT)			
LED951	6-500-450-01	LED CL-195SR-CD-T (EQ3)			
LED952	6-500-450-01	LED CL-195SR-CD-T (SEEK)			
LED953	6-500-450-01	LED CL-195SR-CD-T (DSO)			
LED954	6-500-450-01	LED CL-195SR-CD-T (SOURCE)			

Ref. No.	Part No.	Description			Remark
		< SWITCH >			
LSW901	1-771-476-11	SWITCH, KEYBOARD (WITH LED) (OFF)			
LSW904	1-771-476-11	SWITCH, KEYBOARD (WITH LED) (SEL)			
LSW905	1-771-476-11	SWITCH, KEYBOARD (WITH LED) (+ (VOLUME))			
LSW906	1-771-476-11	SWITCH, KEYBOARD (WITH LED) (– (VOLUME))			
LSW907	1-771-476-11	SWITCH, KEYBOARD (WITH LED) (ATT)			
LSW908	1-771-476-11	SWITCH, KEYBOARD (WITH LED) (MODE)			
LSW909	1-771-883-11	SWITCH, TACTILE (WITH LED) (AF)			
LSW910	1-771-883-11	SWITCH, TACTILE (WITH LED) (SENS/BTM)			
LSW912	1-771-476-11	SWITCH, KEYBOARD (WITH LED) (DSPL)			
LSW913	1-771-476-11	SWITCH, KEYBOARD (WITH LED) (+ ▶▶I ▶▶ SEEK)			
LSW914	1-771-476-11	SWITCH, KEYBOARD (WITH LED) (SEEK ◀◀ I◀◀ –)			
LSW915	1-771-883-11	SWITCH, TACTILE (WITH LED) (TA)			
LSW916	1-771-883-11	SWITCH, TACTILE (WITH LED) (PTY/LIST) (CA680X)			
LSW916	1-771-883-11	SWITCH, TACTILE (WITH LED) (PTY) (L580X)			
LSW917	1-771-883-11	SWITCH, TACTILE (WITH LED) (6/ALBUM +) (CA680X)			
LSW917	1-771-883-11	SWITCH, TACTILE (WITH LED) (6) (L580X)			
LSW918	1-771-883-11	SWITCH, TACTILE (WITH LED) (5/ALBUM –) (CA680X)			
LSW918	1-771-883-11	SWITCH, TACTILE (WITH LED) (5) (L580X)			
LSW919	1-771-883-11	SWITCH, TACTILE (WITH LED) (4/SHUF)			
LSW920	1-771-883-11	SWITCH, TACTILE (WITH LED) (3/REP)			
LSW921	1-771-883-11	SWITCH, TACTILE (WITH LED) (2/DISC +) (CA680X)			
LSW921	1-771-883-11	SWITCH, TACTILE (WITH LED) (2) (L580X)			
LSW922	1-771-883-11	SWITCH, TACTILE (WITH LED) (1/DISC –) (CA680X)			
LSW922	1-771-883-11	SWITCH, TACTILE (WITH LED) (1) (L580X)			
		< RESISTOR >			
R901	1-216-819-11	METAL CHIP	680	5%	1/10W
R902	1-216-819-11	METAL CHIP	680	5%	1/10W
R903	1-216-819-11	METAL CHIP	680	5%	1/10W
R904	1-216-821-11	METAL CHIP	1K	5%	1/10W
R905	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R906	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R907	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R908	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R909	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R910	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R911	1-216-819-11	METAL CHIP	680	5%	1/10W

KEY **MAIN**

Ref. No.	Part No.	Description			Remark
R912	1-216-819-11	METAL CHIP	680	5%	1/10W
R913	1-216-819-11	METAL CHIP	680	5%	1/10W
R914	1-216-821-11	METAL CHIP	1K	5%	1/10W
R915	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R916	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R917	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R918	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R919	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R920	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R921	1-216-833-11	METAL CHIP	10K	5%	1/10W
R927	1-216-025-11	RES-CHIP	100	5%	1/10W
R928	1-216-021-00	METAL CHIP	68	5%	1/10W
R929	1-216-017-11	RES-CHIP	47	5%	1/10W
R930	1-216-017-11	RES-CHIP	47	5%	1/10W
R931	1-216-041-11	RES-CHIP	470	5%	1/10W
R934	1-216-017-11	RES-CHIP	47	5%	1/10W
R935	1-216-025-11	RES-CHIP	100	5%	1/10W
R936	1-216-021-00	METAL CHIP	68	5%	1/10W
R941	1-216-025-11	RES-CHIP	100	5%	1/10W
R942	1-216-021-00	METAL CHIP	68	5%	1/10W
R946	1-216-025-11	RES-CHIP	100	5%	1/10W
R947	1-216-021-00	METAL CHIP	68	5%	1/10W
R950	1-216-025-11	RES-CHIP	100	5%	1/10W
R951	1-216-021-00	METAL CHIP	68	5%	1/10W
R960	1-216-025-11	RES-CHIP	100	5%	1/10W
R961	1-216-025-11	RES-CHIP	100	5%	1/10W
R962	1-216-029-00	RES-CHIP	150	5%	1/10W
R966	1-216-025-11	RES-CHIP	100	5%	1/10W
R967	1-216-037-00	RES-CHIP	330	5%	1/10W
R970	1-216-864-11	METAL CHIP	0	5%	1/10W
R971	1-216-821-11	METAL CHIP	1K	5%	1/10W
R972	1-216-809-11	METAL CHIP	100	5%	1/10W
R975	1-216-817-11	METAL CHIP	470	5%	1/10W
R976	1-216-817-11	METAL CHIP	470	5%	1/10W
R977	1-216-817-11	METAL CHIP	470	5%	1/10W
R978	1-216-817-11	METAL CHIP	470	5%	1/10W
R979	1-216-817-11	METAL CHIP	470	5%	1/10W
R980	1-216-817-11	METAL CHIP	470	5%	1/10W
R981	1-216-811-11	METAL CHIP	150	5%	1/10W
R982	1-216-811-11	METAL CHIP	150	5%	1/10W
R983	1-216-811-11	METAL CHIP	150	5%	1/10W
R985	1-216-864-11	METAL CHIP	0	5%	1/10W
R986	1-216-821-11	METAL CHIP	1K	5%	1/10W
R987	1-216-821-11	METAL CHIP	1K	5%	1/10W
R988	1-216-821-11	METAL CHIP	1K	5%	1/10W
R989	1-216-840-11	METAL CHIP	39K	5%	1/10W
R990	1-216-857-11	METAL CHIP	1M	5%	1/10W
		< SWITCH >			
S902	1-771-884-11	SWITCH, TACTILE (WITH LED) (SOURCE)			
S903	1-771-884-11	SWITCH, TACTILE (WITH LED) (DSO)			
S911	1-771-884-11	SWITCH, TACTILE (WITH LED) (EQ3)			

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Ref. No.	Part No.	Description			Remark
	A-3274-581-A	MAIN BOARD, COMPLETE (L580X)			
	A-3274-585-A	MAIN BOARD, COMPLETE (CA680X)			
		**********			
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT			
	7-685-793-09	SCREW +PTT 2.6X8 (S)			
	7-685-795-09	SCREW +PTT 2.6X12 (S)			
		< CAPACITOR >			
C1	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C2	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C3	1-126-163-11	ELECT	4.7uF	20%	25V
C4	1-124-589-11	ELECT	47uF	20%	16V
C5	1-124-589-11	ELECT	47uF	20%	16V
C6	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C7	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C11	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C51	1-124-589-11	ELECT	47uF	20%	16V
C54	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C55	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C56	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C57	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C58	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C59	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C61	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C62	1-164-739-11	CERAMIC CHIP	560PF	5%	50V
C64	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C301	1-126-153-11	ELECT	22uF	20%	6.3V
C302	1-126-153-11	ELECT	22uF	20%	6.3V
C303	1-126-153-11	ELECT	22uF	20%	6.3V
C305	1-124-584-00	ELECT	100uF	20%	10V
C330	1-163-251-11	CERAMIC CHIP	100PF	5%	50V (CA680X)
C331	1-163-251-11	CERAMIC CHIP	100PF	5%	50V (CA680X)
C332	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C333	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C334	1-163-251-11	CERAMIC CHIP	100PF	5%	50V (CA680X)
C335	1-163-251-11	CERAMIC CHIP	100PF	5%	50V (CA680X)
C343	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C401	1-124-233-11	ELECT	10uF	20%	16V
C402	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V (CA680X)
C403	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V (CA680X)
C404	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C405	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C406	1-216-864-11	METAL CHIP	0	5%	1/10W
C407	1-216-864-11	METAL CHIP	0	5%	1/10W
C408	1-136-154-00	FILM	0.012uF	5%	50V
C409	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C410	1-136-154-00	FILM	0.012uF	5%	50V
C411	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C412	1-124-589-11	ELECT	47uF	20%	16V
C413	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C420	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C421	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C431	1-124-233-11	ELECT	10uF	20%	16V

Ref. No.	Part No.	Description			Remark
C432	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C441	1-124-233-11	ELECT	10uF	20%	16V
C442	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C451	1-124-233-11	ELECT	10uF	20%	16V
C452	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C461	1-124-233-11	ELECT	10uF	20%	16V
C462	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C479	1-124-589-11	ELECT	47uF	20%	16V
C480	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C501	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C503	1-124-584-00	ELECT	100uF	20%	10V
C504	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C505	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C506	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C507	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C508	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C509	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C580	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (CA680X)
C581	1-126-935-11	ELECT	470uF	20%	16V (CA680X)
C582	1-165-319-11	CERAMIC CHIP	0.1uF		50V (CA680X)
C601	1-135-473-21	ELECT	3300uF	20%	16V
C602	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C617	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C618	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C621	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C622	1-125-710-11	DOUBLE LAYERS	0.1F		5.5V
C623	1-124-584-00	ELECT	100uF	20%	10V
C631	1-124-257-00	ELECT	2.2uF	20%	50V
C751	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C753	1-124-589-11	ELECT	47uF	20%	16V
C754	1-124-257-00	ELECT	2.2uF	20%	50V
C755	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C756	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C757	1-124-233-11	ELECT	10uF	20%	16V
C758	1-124-233-11	ELECT	10uF	20%	16V
C759	1-124-233-11	ELECT	10uF	20%	16V
C760	1-124-584-00	ELECT	100uF	20%	10V
C761	1-124-233-11	ELECT	10uF	20%	16V
C764	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C765	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
JW95	1-126-160-11	ELECT	1uF	20%	50V
JW97	1-126-160-11	ELECT	1uF	20%	50V
		< CONNECTOR >			
* CN330	1-564-506-11	PLUG, CONNECTOR 3P (CA680X)			
CN580	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)			(CA680X)
CN601	1-774-701-11	PIN, CONNECTOR 16P			
CN702	1-784-456-11	CONNECTOR, FFC/FPC 14P			
CNP301	1-764-617-12	PIN, CONNECTOR (PC BOARD) 30P			
		< DIODE >			
D1	8-719-158-15	DIODE RD5.6S-B			
D479	8-719-404-50	DIODE MA111-TX			
D480	8-719-158-15	DIODE RD5.6S-B			
D501	8-719-404-50	DIODE MA111-TX			

Ref. No.	Part No.	Description	Remark
D502	8-719-404-50	DIODE MA111-TX	
D580	8-719-056-82	DIODE UDZ-TE-17-6.2B (CA680X)	
D580	8-719-056-84	DIODE UDZ-TE-17-7.5B (L580X)	
D581	8-719-056-93	DIODE UDZ-TE-17-18B	
D582	8-719-056-93	DIODE UDZ-TE-17-18B (CA680X)	
D583	8-719-072-70	DIODE MA2ZD14001SO (CA680X)	
D601	8-719-049-38	DIODE 1N5404TU	
D609	8-719-056-83	DIODE UDZ-TE-17-6.8B	
D651	8-719-056-93	DIODE UDZ-TE-17-18B	
D704	8-719-056-93	DIODE UDZ-TE-17-18B	
D710	8-719-109-97	DIODE RD6.8ES-B2	
D711	8-719-056-83	DIODE UDZ-TE-17-6.8B	
D712	8-719-056-83	DIODE UDZ-TE-17-6.8B	
D715	8-719-056-83	DIODE UDZ-TE-17-6.8B	
D716	8-719-109-97	DIODE RD6.8ES-B2	
D717	8-719-109-97	DIODE RD6.8ES-B2	
D718	8-719-109-97	DIODE RD6.8ES-B2	
D719	8-719-034-94	DIODE MA4180-M(QZ)	
D720	8-719-109-97	DIODE RD6.8ES-B2	
D751	8-719-970-02	DIODE 1SR139-400	
D752	8-719-053-18	DIODE 1SR154-400TE-25	
D753	8-719-970-02	DIODE 1SR139-400	
D754	8-719-970-02	DIODE 1SR139-400	
D755	8-719-053-18	DIODE 1SR154-400TE-25	
D756	8-719-053-18	DIODE 1SR154-400TE-25	
D757	8-719-970-02	DIODE 1SR139-400	
D758	8-719-970-02	DIODE 1SR139-400	
D759	8-719-970-02	DIODE 1SR139-400	
D760	8-719-970-02	DIODE 1SR139-400	
D761	8-719-053-18	DIODE 1SR154-400TE-25	
D762	8-719-053-18	DIODE 1SR154-400TE-25	
		< IC >	
IC51	6-703-809-01	IC SAA6588T/V2-518	
IC401	6-703-304-01	IC BD3802F-FE2	
IC501	6-802-512-01	IC MN101C49KSE	
IC580	8-759-096-16	IC MM1175XFF (CA680X)	
IC602	8-759-682-69	IC XC61CN4302MR	
IC750	6-703-375-01	IC TDA8588J/N1	
		< JACK >	
J1	1-815-185-12	JACK (ANTENNA)	
J330	1-774-698-11	JACK, PIN 2P (AUDIO OUT REAR) (L580X)	
J330	1-774-699-12	JACK, PIN 4P (AUDIO OUT REAR, BUS AUDIO IN) (CA680X)	
J561	1-566-822-41	JACK (REMOTE IN)	
		< JUMPER RESISTOR >	
JC1	1-216-296-11	SHORT CHIP 0	
JC21	1-216-296-11	SHORT CHIP 0	
JC29	1-216-864-11	METAL CHIP 0 5%	1/10W
JC53	1-216-296-11	SHORT CHIP 0	
JC59	1-216-296-11	SHORT CHIP 0	
JC88	1-216-821-11	METAL CHIP 1K 5%	1/10W
JC303	1-216-864-11	METAL CHIP 0 5%	1/10W
JC401	1-216-864-11	METAL CHIP 0 5%	1/10W
JC406	1-216-296-11	SHORT CHIP 0	
JC407	1-216-296-11	SHORT CHIP 0	

MAIN

Ref. No.	Part No.	Description			Remark
JC409	1-216-296-11	SHORT CHIP	0		
JC431	1-216-296-11	SHORT CHIP	0		
JC441	1-216-296-11	SHORT CHIP	0		
JC444	1-216-296-11	SHORT CHIP	0		
JC479	1-216-864-11	METAL CHIP	0	5%	1/10W
JC530	1-216-296-11	SHORT CHIP	0		
JC532	1-216-296-11	SHORT CHIP	0		
JC533	1-216-864-11	METAL CHIP	0	5%	1/10W
JC580	1-216-296-11	SHORT CHIP	0		
JC581	1-216-296-11	SHORT CHIP	0		
JC582	1-216-296-11	SHORT CHIP	0		
JC584	1-216-296-11	SHORT CHIP	0		(CA680X)
JC609	1-216-296-11	SHORT CHIP	0		
JC631	1-216-296-11	SHORT CHIP	0		
JC651	1-216-296-11	SHORT CHIP	0		
JC701	1-216-296-11	SHORT CHIP	0		
JC753	1-216-296-11	SHORT CHIP	0		
JC754	1-216-296-11	SHORT CHIP	0		
JC755	1-216-296-11	SHORT CHIP	0		
JC756	1-216-864-11	METAL CHIP	0	5%	1/10W
		< COIL >			
L1	1-469-844-11	INDUCTOR	2.2uH		
L301	1-410-501-11	INDUCTOR	2.2uH		
L302	1-469-876-11	INDUCTOR, FERRITE BEAD			
L303	1-469-876-11	INDUCTOR, FERRITE BEAD			
L304	1-500-245-11	INDUCTOR, FERRITE BEAD			
L305	1-500-245-11	INDUCTOR, FERRITE BEAD			
L306	1-500-245-11	INDUCTOR, FERRITE BEAD			
L307	1-469-876-11	INDUCTOR, FERRITE BEAD			
L501	1-410-501-11	INDUCTOR	2.2uH		
L502	1-469-844-11	INDUCTOR	2.2uH		
L601	1-456-227-11	COIL, CHOKE	250uH		
		< TRANSISTOR >			
Q1	8-729-106-68	TRANSISTOR	2SD1615A-GP		
Q22	8-729-900-53	TRANSISTOR	DTC114EK		
Q431	8-729-920-21	TRANSISTOR	DTC314TK-T-146		
Q441	8-729-920-21	TRANSISTOR	DTC314TK-T-146		
Q451	8-729-920-21	TRANSISTOR	DTC314TK-T-146		
Q461	8-729-920-21	TRANSISTOR	DTC314TK-T-146		
Q478	8-729-900-53	TRANSISTOR	DTC114EK		
Q479	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q580	8-729-900-53	TRANSISTOR	DTC114EK		
Q581	8-729-900-53	TRANSISTOR	DTC114EK (L580X)		
Q582	8-729-120-28	TRANSISTOR	2SC1623-L5L6 (L580X)		
Q631	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q651	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q664	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q701	8-729-047-76	TRANSISTOR	FMC2A-T148		
		< RESISTOR >			
R1	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2	1-216-809-11	METAL CHIP	100	5%	1/10W
R3	1-216-809-11	METAL CHIP	100	5%	1/10W
R29	1-216-809-11	METAL CHIP	100	5%	1/10W
R54	1-216-837-11	METAL CHIP	22K	5%	1/10W
R56	1-216-797-11	METAL CHIP	10	5%	1/10W

Ref. No.	Part No.	Description			Remark
R57	1-216-817-11	METAL CHIP	470	5%	1/10W
R60	1-216-797-11	METAL CHIP	10	5%	1/10W
R61	1-216-864-11	METAL CHIP	0	5%	1/10W
R62	1-216-864-11	METAL CHIP	0	5%	1/10W
R330	1-216-821-11	METAL CHIP	1K	5%	1/10W (CA680X)
R331	1-216-821-11	METAL CHIP	1K	5%	1/10W (CA680X)
R332	1-216-833-11	METAL CHIP	10K	5%	1/10W (CA680X)
R333	1-216-833-11	METAL CHIP	10K	5%	1/10W (CA680X)
R401	1-216-833-11	METAL CHIP	10K	5%	1/10W
R402	1-216-833-11	METAL CHIP	10K	5%	1/10W
R403	1-216-833-11	METAL CHIP	10K	5%	1/10W
R404	1-216-833-11	METAL CHIP	10K	5%	1/10W
R405	1-218-882-11	METAL CHIP	30K	0.5%	1/10W
R406	1-216-809-11	METAL CHIP	100	5%	1/10W
R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R408	1-216-809-11	METAL CHIP	100	5%	1/10W
R409	1-216-809-11	METAL CHIP	100	5%	1/10W
R431	1-216-809-11	METAL CHIP	100	5%	1/10W
R432	1-216-841-11	METAL CHIP	47K	5%	1/10W
R433	1-216-864-11	METAL CHIP	0	5%	1/10W
R441	1-216-809-11	METAL CHIP	100	5%	1/10W
R442	1-216-841-11	METAL CHIP	47K	5%	1/10W
R443	1-216-864-11	METAL CHIP	0	5%	1/10W
R451	1-216-809-11	METAL CHIP	100	5%	1/10W
R452	1-216-841-11	METAL CHIP	47K	5%	1/10W
R453	1-216-864-11	METAL CHIP	0	5%	1/10W
R461	1-216-809-11	METAL CHIP	100	5%	1/10W
R462	1-216-841-11	METAL CHIP	47K	5%	1/10W
R463	1-216-864-11	METAL CHIP	0	5%	1/10W
R479	1-216-805-11	METAL CHIP	47	5%	1/10W
R480	1-216-864-11	METAL CHIP	0	5%	1/10W
R501	1-216-837-11	METAL CHIP	22K	5%	1/10W
R502	1-216-809-11	METAL CHIP	100	5%	1/10W
R503	1-216-809-11	METAL CHIP	100	5%	1/10W
R504	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R505	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R508	1-216-813-11	METAL CHIP	220	5%	1/10W
R509	1-216-813-11	METAL CHIP	220	5%	1/10W
R510	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R511	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R512	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R513	1-216-845-11	METAL CHIP	100K	5%	1/10W
R514	1-216-845-11	METAL CHIP	100K	5%	1/10W
R515	1-216-809-11	METAL CHIP	100	5%	1/10W
R516	1-216-809-11	METAL CHIP	100	5%	1/10W
R517	1-216-841-11	METAL CHIP	47K	5%	1/10W
R518	1-216-821-11	METAL CHIP	1K	5%	1/10W
R519	1-216-845-11	METAL CHIP	100K	5%	1/10W
R520	1-249-441-11	CARBON	100K	5%	1/4W
R521	1-216-833-11	METAL CHIP	10K	5%	1/10W
R522	1-216-833-11	METAL CHIP	10K	5%	1/10W
R523	1-216-809-11	METAL CHIP	100	5%	1/10W
R524	1-216-809-11	METAL CHIP	100	5%	1/10W
R525	1-216-809-11	METAL CHIP	100	5%	1/10W
R526	1-216-809-11	METAL CHIP	100	5%	1/10W

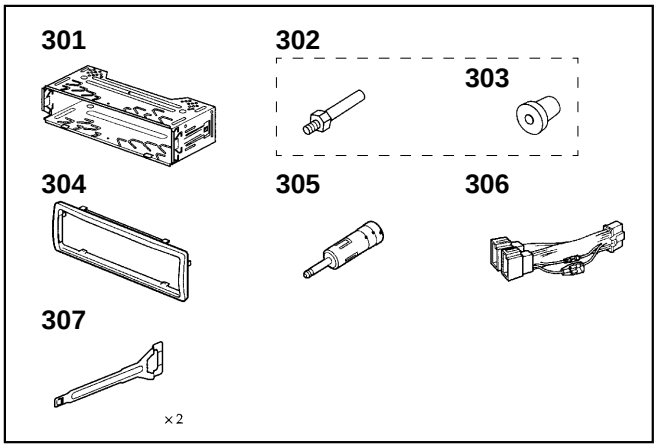
Ref. No.	Part No.	Description			Remark
R527	1-216-809-11	METAL CHIP	100	5%	1/10W
R528	1-216-845-11	METAL CHIP	100K	5%	1/10W
R530	1-216-845-11	METAL CHIP	100K	5%	1/10W
R531	1-216-845-11	METAL CHIP	100K	5%	1/10W
R532	1-216-845-11	METAL CHIP	100K	5%	1/10W
R533	1-216-845-11	METAL CHIP	100K	5%	1/10W
R534	1-216-833-11	METAL CHIP	10K	5%	1/10W
R535	1-216-845-11	METAL CHIP	100K	5%	1/10W (L580X)
R536	1-216-845-11	METAL CHIP	100K	5%	1/10W (L580X)
R538	1-216-845-11	METAL CHIP	100K	5%	1/10W
R539	1-249-417-11	CARBON	1K	5%	1/4W
R540	1-216-845-11	METAL CHIP	100K	5%	1/10W (L580X)
R541	1-216-845-11	METAL CHIP	100K	5%	1/10W (L580X)
R580	1-216-809-11	METAL CHIP	100	5%	1/10W (CA680X)
R581	1-216-809-11	METAL CHIP	100	5%	1/10W (CA680X)
R582	1-216-821-11	METAL CHIP	1K	5%	1/10W (L580X)
R582	1-216-835-11	METAL CHIP	15K	5%	1/10W (CA680X)
R583	1-216-821-11	METAL CHIP	1K	5%	1/10W
R584	1-216-849-11	METAL CHIP	220K	5%	1/10W (L580X)
R585	1-216-849-11	METAL CHIP	220K	5%	1/10W (L580X)
R609	1-216-821-11	METAL CHIP	1K	5%	1/10W
R631	1-249-425-11	CARBON	4.7K	5%	1/4W
R632	1-216-841-11	METAL CHIP	47K	5%	1/10W
R633	1-216-841-11	METAL CHIP	47K	5%	1/10W
R634	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R636	1-216-845-11	METAL CHIP	100K	5%	1/10W
R651	1-216-821-11	METAL CHIP	1K	5%	1/10W
R652	1-249-437-11	CARBON	47K	5%	1/4W
R653	1-216-833-11	METAL CHIP	10K	5%	1/10W
R654	1-216-833-11	METAL CHIP	10K	5%	1/10W
R671	1-216-809-11	METAL CHIP	100	5%	1/10W
R672	1-216-809-11	METAL CHIP	100	5%	1/10W
R673	1-208-806-11	RES-CHIP	10K	0.5%	1/10W
R674	1-216-845-11	METAL CHIP	100K	5%	1/10W
R701	1-216-029-00	METAL CHIP	150	5%	1/10W
R702	1-216-029-00	METAL CHIP	150	5%	1/10W
R703	1-216-029-00	METAL CHIP	150	5%	1/10W
R704	1-216-029-00	METAL CHIP	150	5%	1/10W
R720	1-216-864-11	METAL CHIP	0	5%	1/10W
R752	1-216-809-11	METAL CHIP	100	5%	1/10W
R756	1-216-841-11	METAL CHIP	47K	5%	1/10W
R999	1-216-837-11	METAL CHIP	22K	5%	1/10W
		< SWITCH >			
S501	1-786-458-11	SWITCH, PUSH (1 KEY) (NOSE DET)			
S702	1-692-431-21	SWITCH, TACTILE (RESET)			
		< THERMISTOR (POSITIVE) >			
TH580	1-803-350-21	THERMISTOR, POSITIVE (CA680X)			

Ref. No.	Part No.	Description			Remark
		< TUNER >			
TU1	A-3220-887-A	TUNER UNIT (TUX-030)			
		< VIBRATOR >			
X51	1-579-242-41	VIBRATOR, CRYSTAL (4.332MHz)			
X501	1-781-294-21	VIBRATOR, CRYSTAL (18.432MHz)			
X502	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
	A-3283-270-A	SERVO BOARD, COMPLETE			
		**********			
	1-683-666-11	PICK-UP FLEXIBLE BOARD			
		< CAPACITOR >			
C1	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C4	1-104-609-11	ELECT CHIP	100uF	20%	4V
C5	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C6	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C8	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C9	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C10	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C11	1-162-909-11	CERAMIC CHIP	4PF	0.25PF	50V
C13	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C14	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C15	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C16	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C17	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C18	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C19	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C20	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C22	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C23	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C24	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C25	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C26	1-126-391-11	ELECT CHIP	47uF	20%	6.3V
C27	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C29	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C30	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C34	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C35	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C36	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C38	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C41	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C43	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C44	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C70	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C71	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN1	1-764-616-41	HOUSING, CONNECTOR (PC BOARD) 30P			
CN3	1-770-347-21	CONNECTOR, FPC 6P			
		< RESISTOR >			
FB5	1-216-298-11	RES-CHIP	2.2	5%	1/10W

SERVO **SUB**

Ref. No.	Part No.	Description			Remark
		< IC >			
IC1	8-759-699-98	IC uPD63711GC-8EU			
IC2	8-759-658-87	IC BA5810FP-E2			
		< TRANSISTOR >			
Q1	8-729-904-87	TRANSISTOR 2SB1197K-R			
		< RESISTOR >			
R3	1-216-797-11	METAL CHIP	10	5%	1/10W
R5	1-218-344-11	METAL CHIP	7.5K	5%	1/10W
R6	1-216-837-11	METAL CHIP	22K	5%	1/10W
R7	1-216-839-11	METAL CHIP	33K	5%	1/10W
R8	1-216-833-11	METAL CHIP	10K	5%	1/10W
R9	1-216-840-11	METAL CHIP	39K	5%	1/10W
R10	1-216-835-11	METAL CHIP	15K	5%	1/10W
R12	1-216-837-11	METAL CHIP	22K	5%	1/10W
R14	1-216-841-11	METAL CHIP	47K	5%	1/10W
R15	1-216-841-11	METAL CHIP	47K	5%	1/10W
R17	1-216-809-11	METAL CHIP	100	5%	1/10W
R18	1-216-809-11	METAL CHIP	100	5%	1/10W
R19	1-216-809-11	METAL CHIP	100	5%	1/10W
R20	1-216-809-11	METAL CHIP	100	5%	1/10W
R21	1-216-821-11	METAL CHIP	1K	5%	1/10W
R22	1-216-821-11	METAL CHIP	1K	5%	1/10W
R26	1-216-797-11	METAL CHIP	10	5%	1/10W
R29	1-216-833-11	METAL CHIP	10K	5%	1/10W
R30	1-216-833-11	METAL CHIP	10K	5%	1/10W
R31	1-216-789-11	METAL CHIP	2.2	5%	1/10W
		< SWITCH >			
SW5	1-762-944-12	SWITCH, DETECTION (SMALL TYPE) (DOWN)			
		< VIBRATOR >			
X1	1-795-520-11	VIBRATOR, CERAMIC (16.9344MHz)			
**********					
	1-686-703-11	SUB BOARD			
		**********			
	1-792-195-11	CABLE, FLEXIBLE FLAT (14 CORE) (CN801)			
		< CONNECTOR >			
CN802	1-817-159-11	SOCKET, CONNECTOR 14P			
		< DIODE >			
LED801	8-719-082-38	LED CL-270SR-C-TS (DOOR INDICATOR)			
LED802	6-500-450-01	LED CL-195SR-CD-T (⏏)			
		< SWITCH >			
S801	1-771-884-11	SWITCH, TACTILE (WITH LED) (⏏)			
**********					

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
11	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER)	
52	1-790-355-71	CORD (WITH CONNECTOR) (RCA) (AUDIO OUT FRONT) (CA680X)	
251	X-3378-598-3	CHASSIS (OP) ASSY (including M901)	
257	1-683-665-11	MOTOR FLEXIBLE BOARD	
⚠259	8-820-103-11	OPTICAL PICK-UP KSS-720A/C-RP	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
M902	A-3291-674-A	MOTOR ASSY, SLED (SLED)	
M903	A-3315-039-A	MOTOR SUB ASSY, LD (LOADING)	
**********			
		ACCESSORIES	
		**********	
	3-247-306-11	MANUAL, INSTRUCTION (ENGLISH,GERMAN, FRENCH,ITALIAN,DUTCH)	
	3-247-307-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, GERMAN,FRENCH,ITALIAN,DUTCH)	
	X-3383-264-1	CASE (PANEL) ASSY (for FRONT PANEL)	
**********			
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
301	X-3382-647-1	FRAME ASSY, FITTING	
302	X-3382-926-1	SCREW ASSY (BS), FITTING	
303	3-349-410-11	BUSHING	
304	3-246-443-01	COLLAR	
305	1-465-459-21	ADAPTOR, ANTENNA	
306	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER)	
307	3-246-471-01	KEY (FRAME)	



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

MEMO

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
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Ver.	Date	Description of Revision
1.0	2002. 11	New